

PhotoMOS[®] Selector Chart

GU: General use & wide variation **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | GU SOP | | | | | | | | | | |
|---|---|---------------------------------------|---------|---------|---------|---------|---------------------------------------|---------|---------|---------|------|--|
| | | 1 Form A | | | | | 1 Form A | | | | | |
| | | AC/DC | | | | | AC/DC | | | | | |
| Appearance configuration *Standoff height included | | | | | | | | | | | | |
| Part No. | | AQY212S | AQY210S | AQY214S | AQV212S | AQV215S | AQV217S | AQV210S | AQV214S | AQV216S | | |
| Load voltage | Peak AC | 60V | 350V | 400V | 60V | 100V | 200V | 350V | 400V | 600V | | |
| | DC | 60V | 350V | 400V | 60V | 100V | 200V | 350V | 400V | 600V | | |
| Output | Continuous load current *6-pin type: in case of A connection | 1A | | | | | 1A | | | | | |
| | | 0.5A | | | | | 0.5A | | | | | |
| | Peak load current | 1.5A | 0.3A | 0.24A | 1.5A | 0.9A | 0.48A | 0.3A | 0.3A | 0.12A | | |
| | Power dissipation | 300mW | | | | | 450mW | | | | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 0.83Ω | 17Ω | 25Ω | 0.83Ω | 2.3Ω | 11Ω | 23Ω | 30Ω | 70Ω | |
| | | Max. | 2.5Ω | 25Ω | 35Ω | 2.5Ω | 4.0Ω | 15Ω | 35Ω | 50Ω | 120Ω | |
| | Output capacitance (Typ.) | | 80pF | 45pF | | 80pF | 110pF | 70pF | 45pF | | | |
| Off state leakage current (Max.) | | 1μA | | | | | 1μA | | | | | |
| Input | LED forward current | 50mA | | | | | 50mA | | | | | |
| | LED reverse voltage | 5V | | | | | 5V | | | | | |
| | Peak forward current | 1A | | | | | 1A | | | | | |
| | Power dissipation | 75mW | | | | | 75mW | | | | | |
| | LED operate current | Typ. | 0.9mA | | | | | 0.7mA | | | | |
| | | Max. | 3mA | | | | | 3mA | | | | |
| | LED turn off current | Min. | 0.4mA | | | | | 0.4mA | | | | |
| | Typ. | 0.85mA | | | | | 0.65mA | | | | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | | | | | 1.25V (1.14V at I _F = 5mA) | | | | | |
| | Max. | 1.5V | | | | | 1.5V | | | | | |
| Turn on time | Typ. | 0.65ms | 0.23ms | 0.21ms | 0.65ms | 0.60ms | 0.25ms | 0.25ms | | 0.28ms | | |
| | Max. | 2ms | 0.5ms | 0.5ms | 2ms | 2ms | 1ms | 0.5ms | | 0.5ms | | |
| Turn off time | Typ. | 0.08ms | 0.04ms | | 0.08ms | 0.06ms | 0.05ms | | | 0.04ms | | |
| | Max. | 0.2ms | 0.2ms | | 0.2ms | 0.2ms | 0.2ms | | | 0.2ms | | |
| Total power dissipation | | 350mW | | | | | 500mW | | | | | |
| I/O isolation voltage | | 1,500Vrms | | | | | 1,500Vrms | | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | | -40 to +85°C -40 to +185°F | | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | | -40 to +100°C -40 to +212°F | | | | | |
| I/O capacitance | Typ. | — | | | | | 0.8pF | | | | | |
| | Max. | 1.5pF | | | | | 1.5pF | | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | | | 1,000MΩ | | | | | |
| Terminal layout and recommended PC board pattern | | | | | | | | | | | | |
| | | TOP VIEW | | | | | TOP VIEW | | | | | |
| Safety standards | | UL/C-UL, BSI | | | | | UL/C-UL | | | | | |
| Mass (weight) (approx.) | | 0.084g .003oz | | | | | 0.125g .004oz | | | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | | | | | | |

PhotoMOS® Selector Chart

GU: General use & wide variation **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | GU SOP High Capacity | | | GU SOP High Capacity Voltage-sensitive | GU High Capacity | |
|---|-------------------------|-------------------------------------|---------------------------------------|----------|--|---------------------------------------|-------|
| | | 1 Form A | | | 1 Form A | 1 Form A | |
| | | AC/DC | | | AC/DC | AC/DC | |
| Appearance configuration *Standoff height included | | | | | | | |
| mm inch | | | | | | | |
| Part No. | | AQY211G2S | AQY212G2S | AQY212GS | AQY212FG2S | AQY212GH | |
| Load voltage | Peak AC | 40V | 60V | | 60V | 60V | |
| | DC | 40V | 60V | | 60V | 60V | |
| Output | Continuous load current | 1.5A | 1.6A | 1.25A | 1A | 1.25A | 1.1A |
| | | 1A | | | | | |
| | | 0.5A | | | | | |
| | Peak load current | 4.0A | 3.0A | | 3.0A | 3.0A | |
| Power dissipation | | 400mW | | | 400mW | 500mW | |
| On resistance | Typ. | 0.1Ω | 0.2Ω | 0.34Ω | 0.2Ω | 0.34Ω | |
| | Max. | 0.15Ω | 0.5Ω | 0.7Ω | 0.5Ω | 0.7Ω | |
| Output capacitance (Typ.) | | 180pF | 150pF | 220pF | 150pF | 220pF | |
| Off state leakage current (Max.) | | 1μA | | | 1μA | 1μA | |
| Input | LED forward current | | 50mA | | Input voltage: 6V | 50mA | |
| | LED reverse voltage | | 5V | | Input reverse voltage: 5V | 5V | |
| | Peak forward current | | 1A | | — | 1A | |
| | Power dissipation | | 75mW | | 65mW | 75mW | |
| | LED operate current | Typ. | 0.9mA | 1.1mA | | Operate voltage: 1.4V | 1.1mA |
| | | Max. | 3mA | 3mA | | Operate voltage: 4V | 3mA |
| | LED turn off current | Min. | 0.2mA | 0.3mA | | Turn off voltage: 0.8V 1.4V | 0.3mA |
| Typ. | | 0.8mA | 1mA | | 1mA | | |
| LED dropout voltage | | Typ. | 1.32V (1.14V at I _F = 5mA) | | Input current: 8.5mA (V _{IN} = 5V) | 1.32V (1.14V at I _F = 5mA) | |
| | | Max. | 1.5V | | | | |
| Turn on time | Typ. | 1ms | 1.3ms | | 0.7ms | 1.3ms | |
| | Max. | 3ms | 5ms | | 5ms | 5ms | |
| Turn off time | Typ. | 0.12ms | 0.1ms | | 0.1ms | 0.1ms | |
| | Max. | 0.5ms | 0.5ms | | 0.5ms | 0.5ms | |
| Total power dissipation | | 450mW | | | 450mW | 550mW | |
| I/O isolation voltage | | 1,500Vrms | | | 500Vrms | 5,000Vrms | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | |
| | Storage | -40 to +100°C -40 to +212°F | | | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | |
| I/O capacitance | Typ. | 0.8pF | | | 0.8pF | 0.8pF | |
| | Max. | 1.5pF | | | 1.5pF | 1.5pF | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | 1,000MΩ | 1,000MΩ | |
| Terminal layout and recommended PC board pattern | | | | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | TOP VIEW | | | TOP VIEW | BOTTOM VIEW TOP VIEW | |
| Safety standards | | UL/C-UL, VDE | | | UL/C-UL, VDE | UL/C-UL, VDE | |
| Mass (weight) (approx.) | | 0.084g .003oz | | | 0.084g .003oz | 0.19g .007oz | |
| Packing style | | Tube packing, Tape and reel packing | | | | | |

GU: General use & wide variation **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| | | | | | | | | | |
|---|---|---------------------------------------|--------|--------|--------|-------------------------------|--------|--------------|-------|
| Product name | | GU | | | | | | | |
| | | 1 Form A | | | | | | | |
| | | AC/DC | | | | | | | |
| Appearance configuration *Standoff height included | | | | | | | | | |
| Part No. | | AQV212 | AQV215 | AQV217 | AQV210 | AQV214 | AQV216 | AQV214H | |
| Load voltage | Peak AC | 60V | 100V | 200V | 350V | 400V | 600V | 400V | |
| | DC | 60V | 100V | 200V | 350V | 400V | 600V | 400V | |
| Output | Continuous load current *6-pin type: in case of A connection | | | | | | | | |
| | Peak load current | 1.5A | 0.96A | 0.54A | 0.4A | 0.3A | 0.15A | 0.3A | |
| | Power dissipation | 500mW | | | | | | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 0.83Ω | 2.3Ω | 11Ω | 23Ω | 30Ω | 70Ω | 30Ω |
| | | Max. | 2.5Ω | 4Ω | 15Ω | 35Ω | 50Ω | 120Ω | 50Ω |
| | Output capacitance (Typ.) | | 80pF | 110pF | 70pF | 45pF | | | |
| | Off state leakage current (Max.) | | 1μA | | | | | | |
| Input | LED forward current | 50mA | | | | | | | |
| | LED reverse voltage | 5V | | | | | | | |
| | Peak forward current | 1A | | | | | | | |
| | Power dissipation | 75mW | | | | | | | |
| | LED operate current | Typ. | 1mA | | | | | | 1.3mA |
| | | Max. | 3mA | | | | | | 3mA |
| | LED turn off current | Min. | 0.4mA | | | | | | 0.4mA |
| | Typ. | 0.79mA | | | | | | 1.2mA | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _f = 5mA) | | | | | | | |
| | Max. | 1.5V | | | | | | | |
| Turn on time | Typ. | 0.65ms | 0.60ms | 0.25ms | 0.25ms | 0.21ms | 0.28ms | 0.60ms | |
| | Max. | 2ms | 2ms | 1ms | 0.5ms | 0.5ms | 0.5ms | 0.8ms | |
| Turn off time | Typ. | 0.08ms | 0.06ms | 0.05ms | 0.05ms | 0.05ms | 0.04ms | 0.05ms | |
| | Max. | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | |
| Total power dissipation | | 550mW | | | | | | | |
| I/O isolation voltage | | 1,500Vrms | | | | | | 5,000Vrms | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | | | | |
| I/O capacitance | Typ. | 0.8pF | | | | | | | |
| | Max. | 1.5pF | | | | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | | | | | |
| Terminal layout and recommended PC board pattern | | <p>Through hole terminal</p> | | | | <p>Surface mount terminal</p> | | | |
| | | BOTTOM VIEW | | | | TOP VIEW | | | |
| | • Tolerance: ±0.1 ±.004 mm inch | | | | | | | | |
| Safety standards | | UL/C-UL | | | | | | UL/C-UL, BSI | |
| Mass (weight) (approx.) | | 0.453g .016oz | | | | | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | | | |

PhotoMOS® Selector Chart

GU: General use & wide variation

GU GE CC RF HE HF HS PD Power

| Product name | | GU SOP | | | GU | | | | | | |
|---|-------------------------|---------------------------------------|---------|---------|---------------------------------------|--------|----------|--------|--------|--------|--|
| | | 2 Form A | | | 2 Form A | | | | | | |
| | | AC/DC | | | AC/DC | | | | | | |
| Appearance configuration *Standoff height included | | | | | | | | | | | |
| Part No. | | AQW212S | AQW210S | AQW214S | AQW212 | AQW215 | AQW217 | AQW210 | AQW214 | AQW216 | |
| Load voltage | Peak AC | 60V | 350V | 400V | 60V | 100V | 200V | 350V | 400V | 600V | |
| | DC | 60V | 350V | 400V | 60V | 100V | 200V | 350V | 400V | 600V | |
| Output | Continuous load current | 1A | | | 0.5A | | | | | | |
| | | 0.5A | | | 0.4A | | | | | | |
| | | 0.1A | | | 0.3A | | | | | | |
| | | 0.08A | | | 0.16A | | | | | | |
| Peak load current | | 1.5A | 0.3A | 0.24A | 1.5A | 0.9A | 0.48A | 0.36A | 0.3A | 0.12A | |
| Power dissipation | | 600mW | | | 800mW | | | | | | |
| On resistance | Typ. | 0.83Ω | 16Ω | 30Ω | 0.83Ω | 2.3Ω | 11Ω | 23Ω | 30Ω | 70Ω | |
| | Max. | 2.5Ω | 35Ω | 50Ω | 2.5Ω | 4Ω | 15Ω | 35Ω | 50Ω | 120Ω | |
| Output capacitance (Typ.) | | 80pF | 45pF | | 80pF | 110pF | 70pF | 45pF | | | |
| Off state leakage current (Max.) | | 1μA | | | 1μA | | | | | | |
| Input | LED forward current | 50mA | | | 50mA | | | | | | |
| | LED reverse voltage | 5V | | | 5V | | | | | | |
| | Peak forward current | 1A | | | 1A | | | | | | |
| | Power dissipation | 75mW | | | 75mW | | | | | | |
| | LED operate current | Typ. | 0.9mA | | | 0.9mA | | | | | |
| | | Max. | 3mA | | | 3mA | | | | | |
| | LED turn off current | Min. | 0.4mA | | | 0.4mA | | | | | |
| | | Typ. | 0.8mA | | | 0.8mA | | | | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | | | 1.25V (1.14V at I _F = 5mA) | | | | | | |
| | Max. | 1.5V | | | 1.5V | | | | | | |
| Turn on time | Typ. | 0.65ms | 0.23ms | 0.21ms | 0.65ms | 0.60ms | 0.25ms | 0.25ms | 0.31ms | 0.28ms | |
| | Max. | 2ms | 0.5ms | 0.5ms | 2ms | 2ms | 1.0ms | 0.5ms | 0.5ms | 0.5ms | |
| Turn off time | Typ. | 0.08ms | 0.04ms | | 0.08ms | 0.06ms | 0.05ms | | | 0.04ms | |
| | Max. | 0.2ms | 0.2ms | | 0.2ms | 0.2ms | 0.2ms | | | 0.2ms | |
| Total power dissipation | | 650mW | | | 850mW | | | | | | |
| I/O isolation voltage | | 1,500Vrms | | | 1,500Vrms | | | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | -40 to +85°C -40 to +185°F | | | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | -40 to +100°C -40 to +212°F | | | | | | |
| I/O capacitance | Typ. | 0.8pF | | | 0.8pF | | | | | | |
| | Max. | 1.5pF | | | 1.5pF | | | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | 1,000MΩ | | | | | | |
| Terminal layout and recommended PC board pattern | | | | | | | | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | TOP VIEW | | | BOTTOM VIEW | | TOP VIEW | | | | |
| Safety standards | | UL/C-UL, BSI | | | UL/C-UL | | | | | | |
| Mass (weight) (approx.) | | 0.195g .007oz | | | 0.5g .017oz | | | | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | | | | | |

GU: General use & wide variation **GU** GE CC RF HE HF HS PD Power

| Product name | | GU SOP | | | GU | | |
|---|---|---------------------------------------|--------------|---------------------------------------|---------------------------------------|--------|-------|
| | | 1 Form B | | 1 Form B | 1 Form B | | |
| | | AC/DC | | AC/DC | AC/DC | | |
| Appearance configuration *Standoff height included | | | | | | | |
| mm inch | | | | | | | |
| Part No. | | AQY412S | AQY410S | AQY414S | AQV414S | AQV414 | |
| Load voltage | Peak AC | 60V | 350V | 400V | 400V | 400V | |
| | DC | 60V | 350V | 400V | 400V | 400V | |
| Output | Continuous load current *6-pin type: in case of A connection | 1A | | | | | |
| | | 0.5A | 0.5A | 0.12A | 0.1A | 0.1A | 0.12A |
| | Peak load current | 1.5A | 0.3A | 0.24A | 0.3A | 0.3A | |
| | Power dissipation | 300mW | | 450mW | 500mW | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 1Ω | 18Ω | 26Ω | 26Ω | 26Ω |
| | | Max. | 2.5Ω | 25Ω | 35Ω | 50Ω | 50Ω |
| | Output capacitance (Typ.) | | 500pF | 110pF | 100pF | 100pF | 100pF |
| Off state leakage current (Max.) | | 1μA | | 1μA | 1μA | | |
| Input | LED forward current | 50mA | | 50mA | 50mA | | |
| | LED reverse voltage | 5V | | 5V | 5V | | |
| | Peak forward current | 1A | | 1A | 1A | | |
| | Power dissipation | 75mW | | 75mW | 75mW | | |
| | LED operate current | Typ. | 0.9mA | | 0.6mA | 1mA | |
| | | Max. | 3mA | | 3mA | 3mA | |
| | LED turn off current | Min. | 0.4mA | | 0.4mA | 0.4mA | |
| Typ. | | 0.85mA | | 0.55mA | 0.95mA | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _f = 5mA) | | 1.25V (1.14V at I _f = 5mA) | 1.25V (1.14V at I _f = 5mA) | | |
| | Max. | 1.5V | | 1.5V | 1.5V | | |
| Turn on time | Typ. | 0.9ms | 0.52ms | 0.47ms | 0.47ms | 0.47ms | |
| | Max. | 3ms | 1ms | 1ms | 1ms | 1ms | |
| Turn off time | Typ. | 0.21ms | 0.23ms | 0.28ms | 0.28ms | 0.28ms | |
| | Max. | 1ms | 1ms | 1ms | 1ms | 1ms | |
| Total power dissipation | | 350mW | | 500mW | 550mW | | |
| I/O isolation voltage | | 1,500Vrms | | 1,500Vrms | 1,500Vrms | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | | |
| | Storage | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | | |
| I/O capacitance | Typ. | 0.8pF | | 0.8pF | 0.8pF | | |
| | Max. | 1.5pF | | 1.5pF | 1.5pF | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | 1,000MΩ | 1,000MΩ | | |
| Terminal layout and recommended PC board pattern | | | | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | TOP VIEW | | BOTTOM VIEW TOP VIEW | | | |
| Safety standards | | UL/C-UL, VDE | UL/C-UL, BSI | | UL/C-UL | | |
| Mass (weight) (approx.) | | 0.084g .003oz | | 0.125g .004oz | 0.453g .016oz | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | |

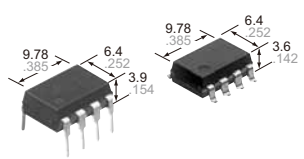
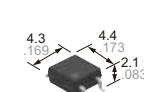
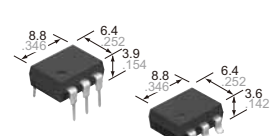
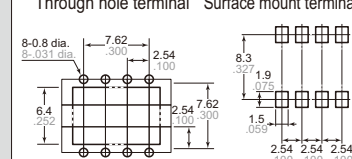
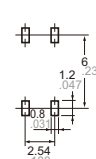
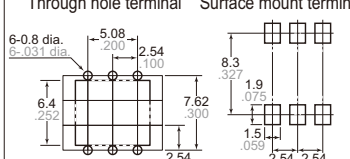
PhotoMOS® Selector Chart

GU: General use & wide variation

GU **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | GU SOP | GU | GU SOP | | |
|---|----------------------|---------------------------------------|---|---------------------------------------|-----------------------------|--|
| | | 2 Form B | 2 Form B | 1 Form A & 1 Form B | | |
| | | AC/DC | AC/DC | AC/DC | | |
| Appearance configuration *Standoff height included | | | | | | |
| Part No. | | AQW414S | AQW414 | AQW612S | AQW610S | |
| Load voltage | Peak AC | 400V | 400V | 60V | 350V | |
| | DC | 400V | 400V | 60V | 350V | |
| Continuous load current | 1A | | | | | |
| | 0.5A | | | 0.45A | | |
| Peak load current | | 0.08A | 0.1A | 1.5A | 0.3A | |
| Power dissipation | | 600mW | 800mW | 600mW | | |
| On resistance | Typ. | 26Ω | 26Ω | 1Ω | 18Ω | |
| | Max. | 50Ω | 50Ω | 2.5Ω | 25Ω | |
| Output capacitance (Typ.) | | 100pF | 100pF | 80pF (N.O.) 500pF(N.C.) | 45pF (N.O.) 100pF (N.C.) | |
| Off state leakage current (Max.) | | 1μA | 1μA | 1μA | | |
| Input | LED forward current | 50mA | 50mA | 50mA | | |
| | LED reverse voltage | 5V | 5V | 5V | | |
| | Peak forward current | 1A | 1A | 1A | | |
| | Power dissipation | 75mW | 75mW | 75mW | | |
| | LED operate current | Typ. | 0.9mA | 0.7mA | 0.9mA | |
| | | Max. | 3mA | 3mA | 3mA | |
| | LED turn off current | Min. | 0.4mA | 0.4mA | 0.4mA | |
| Typ. | | 0.8mA | 0.64mA | 0.8mA | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | 1.25V (1.14V at I _F = 5mA) | 1.25V (1.14V at I _F = 5mA) | | |
| | Max. | 1.5V | 1.5V | 1.5V | | |
| Turn on time | Typ. | 0.43ms | 0.46ms | 0.65ms (N.O.) 0.9ms (N.C.) | 0.28ms (N.O.) 0.52ms (N.C.) | |
| | Max. | 1ms | 1ms | 3ms | 1ms | |
| Turn off time | Typ. | 0.3ms | 0.40ms | 0.08ms (N.O.) 0.2ms (N.C.) | 0.04ms (N.O.) 0.23ms (N.C.) | |
| | Max. | 1ms | 1ms | 1ms | 1ms | |
| Total power dissipation | | 650mW | 850mW | 650mW | | |
| I/O isolation voltage | | 1,500Vrms | 1,500Vrms | 1,500Vrms | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | | |
| | Storage | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | | |
| I/O capacitance | Typ. | 0.8pF | 0.8pF | 0.8pF | | |
| | Max. | 1.5pF | 1.5pF | 1.5pF | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | 1,000MΩ | 1,000MΩ | | |
| Terminal layout and recommended PC board pattern | | | Through hole terminal Surface mount terminal | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | TOP VIEW | BOTTOM VIEW TOP VIEW | TOP VIEW | | |
| Safety standards | | UL/C-UL, BSI | UL/C-UL | UL/C-UL, VDE | UL/C-UL, BSI | |
| Mass (weight) (approx.) | | 0.195g .007oz | 0.5g .017oz | 0.195g .007oz | | |
| Packing style | | | Tube packing, Tape and reel packing | | | |

GU: General use & wide variation **GU** GE CC RF HE HF HS PD Power

| Product name | | GU | GU SOP Short Circuit Protection (Latch type) | GU Short Circuit Protection (Non-latch type) | |
|---|---|---|--|---|-------|
| | | 1 Form A & 1 Form B | 1 Form A | 1 Form A | |
| | | AC/DC | AC/DC | DC | |
| Appearance configuration *Standoff height included | |  |  |  | |
| mm inch | | | | | |
| Part No. | | AQW614 | AQY210KS | AQV112KL | |
| Load voltage | Peak AC | 400V | 350V | — | |
| | DC | 400V | 350V | 60V | |
| Output | Continuous load current *6-pin type: in case of A connection | 1A | | | |
| | | 0.5A | | 0.5A | |
| | Peak load current | 0.3A | 0.2A (Cut off current [Typ.]) | — | |
| | Power dissipation | 800mW | 400mW | 500mW | |
| On resistance *6-pin type: in case of A connection | Typ. | 27Ω | 23.5Ω | 0.55Ω | |
| | Max. | 50Ω | 35Ω | 2Ω | |
| Output capacitance (Typ.) | | 45pF (N.O.) 100pF (N.C.) | 42pF | 300pF | |
| Off state leakage current (Max.) | | 1μA | 1μA | 1μA | |
| Input | LED forward current | | 50mA | 50mA | 50mA |
| | LED reverse voltage | | 5V | 5V | 5V |
| | Peak forward current | | 1A | 1A | 1A |
| | Power dissipation | | 75mW | 75mW | 75mW |
| | LED operate current | Typ. | 0.9mA | 1.1mA | 0.8mA |
| | | Max. | 3mA | 3mA | 10mA |
| | LED turn off current | Min. | 0.4mA | 0.3mA | 0.3mA |
| Typ. | | 0.8mA | 1mA | 0.7mA | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | 1.13V (1.32V at I _F = 50mA) | 1.17V (1.35V at I _F = 50mA) | |
| | Max. | 1.5V | 1.5V | 1.5V | |
| Turn on time | Typ. | 0.28ms (N.O.) 0.43ms (N.C.) | 0.7ms | 2.0ms | |
| | Max. | 1ms | 2.0ms | 5.0ms | |
| Turn off time | Typ. | 0.04ms (N.O.) 0.3ms (N.C.) | 0.07ms | 0.1ms | |
| | Max. | 1ms | 1ms | 1ms | |
| Total power dissipation | | 850mW | 450mW | 550mW | |
| I/O isolation voltage | | 1,500Vrms | 1,500Vrms | 1,500Vrms | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | |
| | Storage | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | |
| I/O capacitance | Typ. | 0.8pF | 0.8pF | 0.8pF | |
| | Max. | 1.5pF | 1.5pF | 1.5pF | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | 1,000MΩ | 1,000MΩ | |
| Terminal layout and recommended PC board pattern | | Through hole terminal Surface mount terminal  |  | Through hole terminal Surface mount terminal  | |
| • Tolerance: ±0.1 ±0.004 mm inch | | | | | |
| Safety standards | | UL/C-UL | UL/C-UL, BSI | UL/C-UL, VDE | |
| Mass (weight) (approx.) | | 0.5g .017oz | 0.084g .003oz | 0.453g .016oz | |
| Packing style | | Tube packing, Tape and reel packing | | | |

PhotoMOS[®] Selector Chart

GU: General use & wide variation **GU** GE CC RF HE HF HS PD Power

| Product name | | GU SOP Current Limiting | GU Current Limiting | |
|---|----------------------------------|---------------------------------------|---------------------------------------|-------|
| | | 1 Form A | 1 Form A | |
| | | AC/DC | AC/DC | |
| Appearance configuration *Standoff height included | | | | |
| Part No. | | AQY210LS | AQY210HL | |
| Output | Load voltage | Peak AC 350V | 350V | |
| | | DC 350V | 350V | |
| | Continuous load current | 1A | | |
| | | 0.5A | | |
| | Peak load current | 0.12A | 0.12A | |
| | Power dissipation | 0.18A (Output Limit Current [Typ.]) | 0.18A (Output Limit Current [Typ.]) | |
| | On resistance | Typ. | 400mW | 500mW |
| | | Max. | 20Ω | 20Ω |
| | Output capacitance (Typ.) | | 25Ω | 25Ω |
| | Off state leakage current (Max.) | | 45pF | 45pF |
| Input | LED forward current | 1μA | 1μA | |
| | LED reverse voltage | 50mA | 50mA | |
| | Peak forward current | 5V | 5V | |
| | Power dissipation | 1A | 1A | |
| | LED operate current | Typ. | 75mW | 75mW |
| | | Max. | 1.2mA | 1.2mA |
| | LED turn off current | Min. | 3mA | 3mA |
| Typ. | | 0.4mA | 0.4mA | |
| LED dropout voltage | Typ. | 1.1mA | 1.1mA | |
| | Max. | 1.25V (1.14V at I _F = 5mA) | 1.25V (1.14V at I _F = 5mA) | |
| Turn on time | Typ. | 1.5V | 1.5V | |
| | Max. | 0.5ms | 0.5ms | |
| Turn off time | Typ. | 2ms | 2ms | |
| | Max. | 0.08ms | 0.08ms | |
| Total power dissipation | | 1ms | 1ms | |
| I/O isolation voltage | | 450mW | 550mW | |
| Ambient temperature | Operating | 1,500Vrms | 5,000Vrms | |
| | Storage | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | |
| I/O capacitance | Typ. | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | |
| | Max. | 0.8pF | 0.8pF | |
| Initial I/O isolation resistance (Min.) | | 1.5pF | 1.5pF | |
| Terminal layout and recommended PC board pattern | | 1,000MΩ | 1,000MΩ | |
| | • Tolerance: ±0.1 ±.004 mm inch | | | |
| Safety standards | | UL/C-UL, BSI | | |
| Mass (weight) (approx.) | | 0.084g .003oz | 0.19g .007oz | |
| Packing style | | Tube packing, Tape and reel packing | | |

GE: General use and Economical **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| | | | | | | | |
|---|---------------------------|--|--------------|----------|----------|----------|-------|
| Product name | | GE | | | | | |
| | | 1 Form A | | | | | |
| | | AC/DC | | | | | |
| Appearance configuration *Standoff height included | | | | | | | |
| Part No. | | AQY211EH | AQY212EH | AQY210EH | AQY214EH | AQY216EH | |
| Load voltage | Peak AC | 30V | 60V | 350V | 400V | 600V | |
| | DC | 30V | 60V | 350V | 400V | 600V | |
| Output | Continuous load current | 1A | 1A | 0.13A | 0.12A | 0.05A | |
| | | 0.5A | 0.55A | | | | |
| | | Peak load current | 3A | 1.5A | 0.4A | 0.3A | 0.15A |
| | Power dissipation | 500mW | | | | | |
| | On resistance | Typ. | 0.25Ω | 0.85Ω | 18Ω | 26Ω | 52Ω |
| | | Max. | 0.5Ω | 2.5Ω | 25Ω | 35Ω | 120Ω |
| | Output capacitance (Typ.) | | 240pF | 80pF | 45pF | | 35pF |
| Off state leakage current (Max.) | | 1μA | | | | | |
| Input | LED forward current | 50mA | | | | | |
| | LED reverse voltage | 5V | | | | | |
| | Peak forward current | 1A | | | | | |
| | Power dissipation | 75mW | | | | | |
| | LED operate current | Typ. | 1.2mA | | | | |
| | | Max. | 3mA | | | | |
| | LED turn off current | Min. | 0.4mA | | | | |
| Typ. | | 1.1mA | | | | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | | | | | |
| | Max. | 1.5V | | | | | |
| Turn on time | Typ. | 1.5ms | 1ms | 0.5ms | | | |
| | Max. | 5ms | 4ms | 2ms | | | |
| Turn off time | Typ. | 0.1ms | 0.05ms | 0.08ms | | 0.04ms | |
| | Max. | 1ms | 1ms | 1ms | | 1ms | |
| Total power dissipation | | 550mW | | | | | |
| I/O isolation voltage | | 5,000Vrms | | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | | |
| I/O capacitance | Typ. | 0.8pF | | | | | |
| | Max. | 1.5pF | | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | | | |
| Terminal layout and recommended PC board pattern | | <p>Through hole terminal Surface mountminal</p> | | | | | |
| • Tolerance: ±0.1 ±.004 | mm inch | | | | | | |
| Safety standards | | UL/C-UL | UL/C-UL, BSI | | | | |
| Mass (weight) (approx.) | | 0.19g .007oz | | | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | |

PhotoMOS[®] Selector Chart

GE: General use and Economical **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| | | | | |
|---|---|---------------------------------------|----------|-------|
| Product name | | GE | | |
| | | 1 Form A | | |
| | | AC/DC | | |
| Appearance configuration *Standoff height included | | | | |
| Part No. | | AQV210EH | AQV214EH | |
| Output | Load voltage | Peak AC | 350V | 400V |
| | | DC | 350V | 400V |
| | Continuous load current *6-pin type: in case of A connection | 1A | | |
| | | 0.5A | | |
| | | | 0.13A | 0.12A |
| | Peak load current | 0.4A | | 0.3A |
| | Power dissipation | 500mW | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 23Ω | 30Ω |
| | | Max. | 35Ω | 50Ω |
| | Output capacitance (Typ.) | 45pF | | |
| Off state leakage current (Max.) | 1μA | | | |
| Input | LED forward current | 50mA | | |
| | LED reverse voltage | 5V | | |
| | Peak forward current | 1A | | |
| | Power dissipation | 75mW | | |
| | LED operate current | Typ. | 1.6mA | |
| | | Max. | 3mA | |
| LED turn off current | Min. | 0.4mA | | |
| | Typ. | 1.5mA | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | | |
| | Max. | 1.5V | | |
| Turn on time | Typ. | 0.7ms | | |
| | Max. | 2ms | | |
| Turn off time | Typ. | 0.05ms | | |
| | Max. | 1ms | | |
| Total power dissipation | 550mW | | | |
| I/O isolation voltage | 5,000Vrms | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | |
| | Storage | -40 to +100°C -40 to +212°F | | |
| I/O capacitance | Typ. | 0.8pF | | |
| | Max. | 1.5pF | | |
| Initial I/O isolation resistance (Min.) | 1,000MΩ | | | |
| Terminal layout and recommended PC board pattern | | | | |
| • Tolerance: ±0.1 ±.004 | mm inch | | | |
| Safety standards | UL/C-UL, BSI | | | |
| Mass (weight) (approx.) | 0.453g .016oz | | | |
| Packing style | Tube packing, Tape and reel packing | | | |

GE: General use and Economical **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| | | | | | | |
|---|---------------------------|---------------------------------------|----------|----------|----------|-------|
| Product name | | GE | | | | |
| | | 2 Form A | | | | |
| | | AC/DC | | | | |
| Appearance configuration *Standoff height included | | | | | | |
| Part No. | | AQW212EH | AQW210EH | AQW214EH | AQW216EH | |
| Load voltage | Peak AC | 60V | 350V | 400V | 600V | |
| | DC | 60V | 350V | 400V | 600V | |
| Output | Continuous load current | 1A | | | | |
| | | 0.5A | 0.5A | 0.12A | 0.1A | 0.04A |
| | Peak load current | 1.5A | 0.36A | 0.3A | 0.12A | |
| | Power dissipation | 800mW | | | | |
| | On resistance | Typ. | 0.83Ω | 18Ω | 26Ω | 52Ω |
| | | Max. | 2.5Ω | 25Ω | 35Ω | 120Ω |
| | Output capacitance (Typ.) | | 80pF | 45pF | | 35pF |
| Off state leakage current (Max.) | | 1μA | | | | |
| Input | LED forward current | 50mA | | | | |
| | LED reverse voltage | 5V | | | | |
| | Peak forward current | 1A | | | | |
| | Power dissipation | 75mW | | | | |
| | LED operate current | Typ. | 1.2mA | | | |
| | | Max. | 3mA | | | |
| | LED turn off current | Min. | 0.4mA | | | |
| Typ. | | 1.1mA | | | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | | | | |
| | Max. | 1.5V | | | | |
| Turn on time | Typ. | 1.0ms | 0.5ms | | | |
| | Max. | 4.0ms | 2ms | | | |
| Turn off time | Typ. | 0.08ms | | | 0.04ms | |
| | Max. | 1ms | | | 1ms | |
| Total power dissipation | | 850mW | | | | |
| I/O isolation voltage | | 5,000Vrms | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | |
| I/O capacitance | Typ. | 0.8pF | | | | |
| | Max. | 1.5pF | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | | |
| Terminal layout and recommended PC board pattern | | | | | | |
| • Tolerance: ±0.1 ±.004 | mm inch | | | | | |
| Safety standards | | UL/C-UL, BSI | | | | |
| Mass (weight) (approx.) | | 0.4g .014oz | | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | |

PhotoMOS[®] Selector Chart

GE: General use and Economical **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**



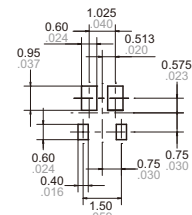
| Product name | | GE | | | | | | |
|---|---|---------------------------------------|--------------|-----------------------|---------------------------------------|--------------|----------|-------|
| | | 1 Form B | | | 1 Form B | | | |
| | | AC/DC | | | AC/DC | | | |
| Appearance configuration *Standoff height included | | | | | | | | |
| mm inch | | | | | | | | |
| Part No. | | AQY412EH | AQY410EH | AQY414EH | AQV412EH | AQV410EH | AQV414EH | |
| Load voltage | Peak AC | 60V | 350V | 400V | 60V | 350V | 400V | |
| | DC | 60V | 350V | 400V | 60V | 350V | 400V | |
| Output | Continuous load current *6-pin type: in case of A connection | 1A | | | | | | |
| | | 0.5A | 0.55A | 0.13A | 0.12A | 0.55A | 0.13A | 0.12A |
| | Peak load current | 1.5A | 0.4A | 0.3A | 1.5A | 0.4A | 0.3A | |
| | Power dissipation | 500mW | | | 500mW | | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 1Ω | 18Ω | 26Ω | 1Ω | 18Ω | 25.2Ω |
| | | Max. | 2.5Ω | 25Ω | 35Ω | 2.5Ω | 35Ω | 50Ω |
| | Output capacitance (Typ.) | | 500pF | 110pF | 100pF | 500pF | 110pF | 100pF |
| Off state leakage current (Max.) | | 10μA | | | 10μA | | | |
| Input | LED forward current | 50mA | | | 50mA | | | |
| | LED reverse voltage | 5V | | | 5V | | | |
| | Peak forward current | 1A | | | 1A | | | |
| | Power dissipation | 75mW | | | 75mW | | | |
| | LED operate current | Typ. | 1.4mA | | | 1.9mA | | |
| | | Max. | 3mA | | | 3mA | | |
| | LED turn off current | Min. | 0.4mA | | | 0.4mA | | |
| Typ. | | 1.3mA | | | 1.8mA | | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | | | 1.25V (1.14V at I _F = 5mA) | | | |
| | Max. | 1.5V | | | 1.5V | | | |
| Turn on time | Typ. | 3ms | 1ms | 0.8ms | 3ms | 1.5ms | 1.3ms | |
| | Max. | 10ms | 3ms | 3ms | 8ms | 3ms | 3ms | |
| Turn off time | Typ. | 0.2ms | 0.3ms | 0.2ms | 0.3ms | | | |
| | Max. | 1ms | 1ms | 1ms | 1.5ms | | | |
| Total power dissipation | | 550mW | | | 550mW | | | |
| I/O isolation voltage | | 5,000Vrms | | | 5,000Vrms | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | -40 to +85°C -40 to +185°F | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | -40 to +100°C -40 to +212°F | | | |
| I/O capacitance | Typ. | 0.8pF | | | 0.8pF | | | |
| | Max. | 1.5pF | | | 1.5pF | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | 1,000MΩ | | | |
| Terminal layout and recommended PC board pattern | Through hole terminal | Surface mount terminal | | Through hole terminal | Surface mount terminal | | | |
| | | | | | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | BOTTOM VIEW | | TOP VIEW | | BOTTOM VIEW | | |
| | | TOP VIEW | | TOP VIEW | | | | |
| Safety standards | | UL/C-UL, VDE | UL/C-UL, BSI | | UL/C-UL, VDE | UL/C-UL, BSI | | |
| Mass (weight) (approx.) | | 0.19g .007oz | | | 0.453g .016oz | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | | |

GE: General use and Economical **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**


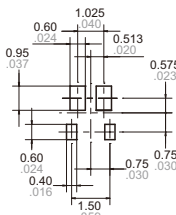
| Product name | | GE | | | | | |
|--|----------------------------------|---------------------------------------|-----------------------------|---------------------------------------|-----------------------------|----------|--|
| | | 2 Form B | | 1 Form A & 1 Form B | | | |
| | | AC/DC | | AC/DC | | | |
| Appearance configuration *Standoff height included mm inch | | | | | | | |
| Part No. | | AQW414EH | | AQW612EH | AQW610EH | AQW614EH | |
| Output | Load voltage | Peak AC | 400V | 60V | 350V | 400V | |
| | | DC | 400V | 60V | 350V | 400V | |
| | Continuous load current | 1A | | | | | |
| | | 0.5A | | 0.5A | | | |
| | Peak load current | | 0.1A | | 0.12A | 0.1A | |
| | Power dissipation | | 800mW | | 800mW | | |
| | On resistance | Typ. | 26Ω | 1Ω | 18Ω | 26Ω | |
| | | Max. | 35Ω | 2.5Ω | 25Ω | 35Ω | |
| | Output capacitance (Typ.) | | 100pF | 80pF (N.O.), 500pF (N.C.) | 45pF (N.O.), 100pF (N.C.) | | |
| | Off state leakage current (Max.) | | 10μA | 1μA (N.O.), 10μA (N.C.) | | | |
| Input | LED forward current | | 50mA | | 50mA | | |
| | LED reverse voltage | | 5V | | 5V | | |
| | Peak forward current | | 1A | | 1A | | |
| | Power dissipation | | 75mW | | 75mW | | |
| | LED operate current | Typ. | 1.3mA | | 1.4mA | | |
| | | Max. | 3mA | | 3mA | | |
| | LED turn off current | Min. | 0.4mA | | 0.4mA | | |
| Typ. | | 1.2mA | | 1.3mA | | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _f = 5mA) | | 1.25V (1.14V at I _f = 5mA) | | | |
| | Max. | 1.5V | | 1.5V | | | |
| Turn on time | Typ. | 0.8ms | 1ms (N.O.), 3ms (N.C.) | 0.5ms (N.O.), 1ms (N.C.) | 0.5ms (N.O.), 0.8ms (N.C.) | | |
| | Max. | 3ms | 4ms (N.O.), 10ms (N.C.) | 3ms | 3ms | | |
| Turn off time | Typ. | 0.2ms | 0.05ms (N.O.), 0.2ms (N.C.) | 0.08ms (N.O.), 0.3ms (N.C.) | 0.08ms (N.O.), 0.2ms (N.C.) | | |
| | Max. | 1ms | 1ms | 1ms | 1ms | | |
| Total power dissipation | | 850mW | | 850mW | | | |
| I/O isolation voltage | | 5,000Vrms | | 5,000Vrms | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | | | |
| | Storage | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | | |
| I/O capacitance | Typ. | 0.8pF | | 0.8pF | | | |
| | Max. | 1.5pF | | 1.5pF | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | 1,000MΩ | | | |
| Terminal layout and recommended PC board pattern | Through hole terminal | | | Through hole terminal | Surface mount terminal | | |
| | Surface mount terminal | | | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | BOTTOM VIEW TOP VIEW | | BOTTOM VIEW | TOP VIEW | | |
| Safety standards | | UL/C-UL, BSI | UL/C-UL, VDE | UL/C-UL, BSI | | | |
| Mass (weight) (approx.) | | 0.4g .014oz | 0.4g .014oz | | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | |

PhotoMOS[®] Selector Chart

CC: Capacitor Coupled isolation **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

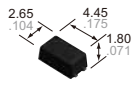

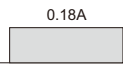
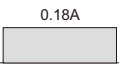
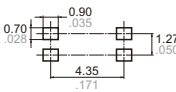
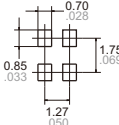
| | | | | |
|---|--|---|--|-----------------------------|
| Product name | | CC TSON CxR | | |
| | | 1 Form A | | |
| | | AC/DC | | |
| Appearance configuration *Standoff height included | |  | | |
| mm inch | | | | |
| Part No. | | AQY2C1R6P | AQY2C1R2P | |
| Output | Load voltage | Peak AC | 30V | 40V |
| | | DC | 30V | 40V |
| | Continuous load current | 1A |  | |
| | | 0.5A | | |
| | Peak load current | 1.5A | 0.75A | |
| | Power dissipation | 250mW | | |
| | On resistance | Typ. | 0.2Ω (V _{IN} = 5V) | 0.8Ω (V _{IN} = 5V) |
| | | Max. | 0.4Ω (V _{IN} = 5V) | 1.5Ω (V _{IN} = 5V) |
| | Output capacitance (Typ.) | 40pF | | 14.5pF |
| | Off state leakage current (Max.) | 10nA | | |
| Input | Input voltage | 5.5V | | |
| | Input reverse voltage | 0.2V | | |
| | Power dissipation | 1.2mW | | |
| | Operate voltage | Typ. | 1.7V | 1.8V |
| | | Max. | 2.5V | 2.5V |
| | Turn off voltag | Min. | 0.5V | 0.5V |
| Typ. | | 1.5V | 1.4V | |
| Input current | Typ. | 0.09mA (V _{IN} = 5V) | | |
| | Max. | 0.2mA (V _{IN} = 5V) | | |
| Turn on time | Typ. | 0.12ms (V _{IN} = 5V) | 0.06ms (V _{IN} = 5V) | |
| | Max. | 0.5ms (V _{IN} = 5V) | 0.5ms (V _{IN} = 5V) | |
| Turn off time | Typ. | 0.1ms (V _{IN} = 5V) | 0.06ms (V _{IN} = 5V) | |
| | Max. | 0.5ms (V _{IN} = 5V) | 0.5ms (V _{IN} = 5V) | |
| Total power dissipation | 250mW | | | |
| I/O isolation voltage | 200Vrms | | | |
| Ambient temperature | Operating | -40 to +105°C -40 to +221°F | | |
| | Storage | -40 to +125°C -40 to +257°F | | |
| I/O capacitance | Typ. | 1.2pF | | |
| | Max. | 3pF | | |
| Initial I/O isolation resistance (Min.) | — | | | |
| Terminal layout and recommended PC board pattern |  | | | |
| • Tolerance: ±0.1 ±.004 | mm inch | | | |
| Safety standards | — | | | |
| Mass (weight) (approx.) | 0.007g .0002oz | | | |
| Packing style | Tape and reel packing | | | |

CC: Capacitor Coupled isolation **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| | | | | | |
|---|----------------------------------|--|-------------------|-------------------|----------------|
| Product name | | CC TSON CxR | | | |
| | | 1 Form A | | | |
| | | AC/DC | | | |
| Appearance configuration *Standoff height included | |  | | | |
| mm inch | | New | New | New | |
| Part No. | | AQY2C2R2P | AQY2C1R3P | AQY2C5R3P | |
| Output | Load voltage | Peak AC | 60V | 40V | 100V |
| | | DC | 60V | 40V | 100V |
| | Continuous load current | 1A | | | |
| | | 0.5A | | | |
| | Peak load current | | 0.9A | 0.3A | 0.3A |
| | Power dissipation | | 250mW | | |
| | On resistance | Typ. | 0.9Ω (VIN = 5V) | 10.5Ω (VIN = 5V) | 9Ω (VIN = 5V) |
| | | Max. | 1.5Ω (VIN = 5V) | 15Ω (VIN = 5V) | 14Ω (VIN = 5V) |
| | Output capacitance (Typ.) | | 27pF | 1.2pF | 5.8pF |
| | Off state leakage current (Max.) | | 10nA | | |
| Input | Input voltage | | 5.5V | | |
| | Input reverse voltage | | 0.2V | | |
| | Power dissipation | | 1.2mW | | |
| | Operate voltage | Typ. | 1.7V | 2.2V | 2.0V |
| | | Max. | 2.5V | 2.5V | 2.5V |
| | Turn off voltag | Min. | 0.5V | 0.5V | 0.5V |
| | | Typ. | 1.4V | 1.5V | 1.5V |
| Input current | Typ. | 0.09mA (VIN = 5V) | | | |
| | Max. | 0.2mA (VIN = 5V) | | | |
| Turn on time | Typ. | 0.08ms (VIN = 5V) | 0.01ms (VIN = 5V) | 0.03ms (VIN = 5V) | |
| | Max. | 0.5ms (VIN = 5V) | 0.1ms (VIN = 5V) | 0.2ms (VIN = 5V) | |
| Turn off time | Typ. | 0.1ms (VIN = 5V) | 0.02ms (VIN = 5V) | 0.04ms (VIN = 5V) | |
| | Max. | 0.5ms (VIN = 5V) | 0.2ms (VIN = 5V) | 0.5ms (VIN = 5V) | |
| Total power dissipation | | 250mW | | | |
| I/O isolation voltage | | 200Vrms | | | |
| Ambient temperature | Operating | -40 to +105°C -40 to +221°F | | | |
| | Storage | -40 to +125°C -40 to +257°F | | | |
| I/O capacitance | Typ. | 1.2pF | | | |
| | Max. | 3pF | | | |
| Initial I/O isolation resistance (Min.) | | — | | | |
| Terminal layout and recommended PC board pattern | |  | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | TOP VIEW | | | |
| Safety standards | | — | | | |
| Mass (weight) (approx.) | | 0.007g .0002oz | | | |
| Packing style | | Tape and reel packing | | | |



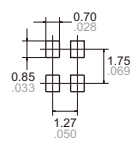
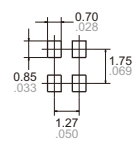
PhotoMOS[®] Selector Chart

RF: Low on-resistance & low output capacitance **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | RF SSOP C×R3 | RF VSSOP C×R3 | |
|---|----------------------|---|---|-------|
| | | 1 Form A | 1 Form A | |
| | | AC/DC | AC/DC | |
| Appearance configuration *Standoff height included | |  |  | |
| mm inch | | | | |
| Part No. | | AQY221N5V | AQY221N5T | |
| Load voltage | Peak AC | 20V | 20V | |
| | DC | 20V | 20V | |
| Continuous load current | 1A | | | |
| | 0.5A | | | |
| | |  |  | |
| Peak load current | | 0.3A | — | |
| Power dissipation | | 250mW | 250mW | |
| On resistance | Typ. | 2.8Ω | 2.8Ω | |
| | Max. | 4.5Ω | 4.5Ω | |
| Output capacitance (Typ.) | | 1.1pF | 1.1pF | |
| Off state leakage current (Max.) | | 10nA | 10nA | |
| Input | LED forward current | 50mA | 50mA | |
| | LED reverse voltage | 5V | 5V | |
| | Peak forward current | 1A | 1A | |
| | Power dissipation | 75mW | 75mW | |
| | LED operate current | Typ. | 0.8mA | 0.7mA |
| | | Max. | 3mA | 3mA |
| | LED turn off current | Min. | 0.2mA | 0.2mA |
| Typ. | | 0.7mA | 0.6mA | |
| LED dropout voltage | Typ. | 1.35V (1.14V at I _F = 5mA) | 1.14V (1.35V at I _F = 50mA) | |
| | Max. | 1.5V | 1.5V | |
| Turn on time | Typ. | 0.02ms | 0.02ms | |
| | Max. | 0.2ms | 0.2ms | |
| Turn off time | Typ. | 0.01ms | 0.01ms | |
| | Max. | 0.2ms | 0.2ms | |
| Total power dissipation | | 300mW | 300mW | |
| I/O isolation voltage | | 1,500Vrms | 200Vrms | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | |
| | Storage | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | |
| I/O capacitance | Typ. | 0.8pF | 0.4pF | |
| | Max. | 1.5pF | 1.5pF | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | — | |
| Terminal layout and recommended PC board pattern | |  |  | |
| • Tolerance: ±0.1 ±.004 mm inch | | TOP VIEW | TOP VIEW | |
| Safety standards | | — | — | |
| Mass (weight) (approx.) | | 0.064g .002oz | 0.026g .001oz | |
| Packing style | | Tape and reel packing* | Tape and reel packing | |

* Packing quantity of 1,000 pieces is possible.

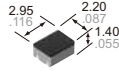
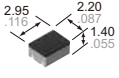
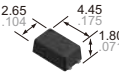
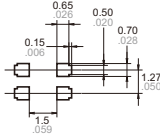
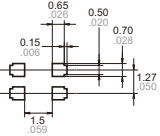
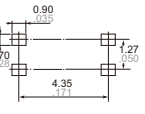
RF: Low on-resistance & low output capacitance GU GE CC RF HE HF HS PD Power

| Product name | | RF VSSOP C×R5 | | RF VSSOP C×R10 | | |
|---|---|---|-----------------|---|-----------------|-----------------|
| | | 1 Form A | | 1 Form A | | |
| | | AC/DC | | AC/DC | | |
| Appearance configuration *Standoff height included | |  | |  | | |
| | | mm inch | | mm inch | | |
| Part No. | | AQY221N3T | AQY221R6T | AQY221R2T | AQY221N2T | |
| Load voltage | Peak AC | 25V | 30V | 40V | | |
| | DC | 25V | 30V | 40V | | |
| Output | Continuous load current | 1A | 0.8A | | | |
| | | 0.5A | | 0.25A | 0.12A | |
| | Peak load current | — | 1.5A | 0.75A | — | |
| | Power dissipation | 250mW | 250mW | | | |
| | On resistance | Typ. Max. | 5.5Ω 7.5Ω | 0.18Ω 0.35Ω | 0.8Ω 1.25Ω | 9.5Ω 12.5Ω |
| Output capacitance (Typ.) | | 1.1pF | 37.5pF | 14pF | 1.1pF | |
| Off state leakage current (Max.) | | 10nA | 10nA | | | |
| Input | LED forward current | | 50mA | 50mA | | |
| | LED reverse voltage | | 5V | 5V | | |
| | Peak forward current | | 1A | 1A | | |
| | Power dissipation | | 75mW | 75mW | | |
| | LED operate current | Typ. Max. | 0.7mA 3mA | 0.5mA 3mA | 0.5mA 3mA | 0.7mA 3mA |
| | LED turn off current | Min. Typ. | 0.2mA 0.6mA | 0.1mA 0.4mA | 0.1mA 0.4mA | 0.2mA 0.6mA |
| | LED dropout voltage | Typ. Max. | 1.14V 1.5V | 1.14V 1.5V | | |
| Turn on time | Typ. Max. | 0.01ms 0.2ms | 0.1ms 0.5ms | 0.1ms 0.5ms | 0.01ms 0.2ms | |
| | Turn off time | Typ. Max. | 0.03ms 0.2ms | 0.06ms 0.2ms | 0.06ms 0.2ms | 0.03ms 0.2ms |
| Total power dissipation | | 300mW | 300mW | | | |
| I/O isolation voltage | | 200Vrms | | 200Vrms | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | | |
| | Storage | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | |
| I/O capacitance | Typ. Max. | 0.4pF 1.5pF | 0.4pF 1.5pF | | | |
| | Initial I/O isolation resistance (Min.) | | — | | | |
| Terminal layout and recommended PC board pattern | |  | |  | | |
| | | TOP VIEW | | TOP VIEW | | |
| • Tolerance: ±0.1 ±.004 mm inch | | | | | | |
| Safety standards | | — | | | | |
| Mass (weight) (approx.) | | 0.026g .001oz | 0.026g .001oz | | | |
| Packing style | | Tape and reel packing | | Tape and reel packing | | |

PhotoMOS® Selector Chart

RF: Low on-resistance & low output capacitance

GU **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | RF SON C×R5 | RF SON C×R10 | | RF SSOP C×R5 | |
|---|----------------------------------|---|--|---|---|-------|
| | | 1 Form A | 1 Form A | | 1 Form A | |
| | | AC/DC | AC/DC | | AC/DC | |
| Appearance configuration *Standoff height included mm inch | |  |  |  | | |
| Part No. | | AQY221N3M | AQY221R2M | AQY221N2M | AQY221N3V | |
| Output | Load voltage | Peak AC | 25V | 40V | 40V | 25V |
| | | DC | 25V | 40V | 40V | 25V |
| | Continuous load current | 1A | ----- | | | |
| | | 0.5A | ----- | | | |
| | Peak load current | | 0.15A | 0.25A | 0.12A | 0.15A |
| | Power dissipation | | 250mW | 250mW | | 250mW |
| | On resistance | Typ. | 5.5Ω | 0.8Ω | 9.5Ω | 5.5Ω |
| | | Max. | 7.5Ω | 1.25Ω | 12.5Ω | 7.5Ω |
| | Output capacitance (Typ.) | | 1.1pF | 14pF | 1.1pF | 1pF |
| | Off state leakage current (Max.) | | 10nA | 10nA | | 10nA |
| Input | LED forward current | | 50mA | 50mA | | 50mA |
| | LED reverse voltage | | 5V | 5V | | 5V |
| | Peak forward current | | 1A | 1A | | 1A |
| | Power dissipation | | 75mW | 75mW | | 75mW |
| | LED operate current | Typ. | 1mA | 0.8mA | 1mA | 1mA |
| | | Max. | 3mA | 3mA | 3mA | 3mA |
| | LED turn off current | Min. | 0.2mA | 0.1mA | 0.2mA | 0.2mA |
| | | Typ. | 0.9mA | 0.7mA | 0.9mA | 0.9mA |
| LED dropout voltage | | Typ. 1.35V (1.14V at I _F = 5mA) Max. 1.5V | 1.35V (1.14V at I _F = 5mA) 1.5V | | 1.35V (1.14V at I _F = 5mA) 1.5V | |
| Turn on time | | Typ. 0.02ms Max. 0.2ms | 0.2ms 0.5ms | 0.02ms 0.2ms | 0.02ms 0.2ms | |
| Turn off time | | Typ. 0.02ms Max. 0.2ms | 0.04ms 0.2ms | 0.02ms 0.2ms | 0.02ms 0.2ms | |
| Total power dissipation | | 300mW | 300mW | | 300mW | |
| I/O isolation voltage | | 200Vrms | 200Vrms | | 1,500Vrms | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | |
| | Storage | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | |
| I/O capacitance | Typ. | 0.8pF | 0.8pF | | 0.8pF | |
| | Max. | 1.5pF | 1.5pF | | 1.5pF | |
| Initial I/O isolation resistance (Min.) | | — | — | | 1,000MΩ | |
| Terminal layout and recommended PC board pattern • Tolerance: ±0.1 ±.004 mm inch | |  |  |  | | |
| Safety standards | | — | | | | |
| Mass (weight) (approx.) | | 0.024g .001oz | 0.024g .001oz | | 0.064g .002oz | |
| Packing style | | Tape and reel packing* | Tape and reel packing* | | Tape and reel packing* | |

* Packing quantity of 1,000 pieces is possible.

RF: Low on-resistance & low output capacitance | **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

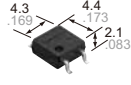
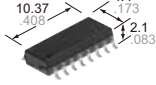
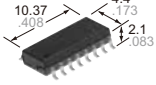
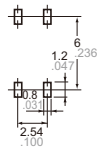
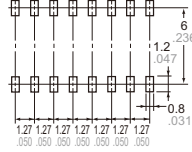
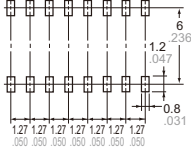
| Product name | | RF SSOP C×R10 | | | | RF SSOP C×R10 Voltage-sensitive | | |
|---|-------------------------|---------------------------------------|-----------|-----------|-----------|--|---------------------------|------------------------|
| | | 1 Form A | | | | 1 Form A | | |
| | | AC/DC | | | | AC/DC | | |
| Appearance configuration *Standoff height included | | | | | | | | |
| | | mm | | inch | | | | |
| Part No. | | AQY221R2V | AQY221R4V | AQY221N2V | AQY221R6V | AQY221FR2V | AQY221FN2V | |
| Load voltage | Peak AC | 40V | 40V | 40V | 30V | 40V | 40V | |
| | DC | 40V | 40V | 40V | 30V | 40V | 40V | |
| Output | Continuous load current | 1A | | 1A | | | | |
| | | 0.5A | | 0.5A | | | | |
| | 0.25A | | 0.12A | | 0.25A | | 0.12A | |
| | Peak load current | 0.75A | 1A | 0.3A | 1.5A | 0.75A | 0.2A | |
| Power dissipation | | 250mW | | | | 250mW | | |
| On resistance | Typ. | 0.75Ω | 0.55Ω | 9.5Ω | 0.18Ω | 0.75Ω | 9.5Ω | |
| | Max. | 1.25Ω | 1Ω | 12.5Ω | 0.35Ω | 1.25Ω | 12.5Ω | |
| Output capacitance (Typ.) | | 12.5pF | 24pF | 1pF | 37.5pF | 12.5pF | 1pF | |
| Off state leakage current (Max.) | | 10nA | | | | 10nA | | |
| Input | LED forward current | | 50mA | | | | Input voltage: 6V | |
| | LED reverse voltage | | 5V | | | | Input reverse voltage: 5V | |
| | Peak forward current | | 1A | | | | — | |
| | Power dissipation | | 75mW | | | | 65mW | |
| | LED operate current | Typ. | 0.9mA | | 1mA | 0.7mA | | Operate voltage: 1.3V |
| | | Max. | 3mA | | 3mA | 3mA | | |
| | LED turn off current | Min. | 0.1mA | | 0.2mA | 0.1mA | | Turn off voltage: 0.8V |
| Typ. | | 0.8mA | | 0.9mA | 0.6mA | | | |
| LED dropout voltage | Typ. | 1.35V (1.14V at I _F = 5mA) | | | | Input current (Typ.): 8.5mA (V _{IN} = 5V) | | |
| | Max. | 1.5V | | | | | | |
| Turn on time | Typ. | 0.1ms | 0.25ms | 0.02ms | 0.2ms | 0.05ms | 0.01ms | |
| | Max. | 0.5ms | 0.75ms | 0.5ms | 0.5ms | 0.5ms | 0.5ms | |
| Turn off time | Typ. | 0.08ms | | 0.02ms | 0.07ms | 0.06ms | 0.03ms | |
| | Max. | 0.2ms | | 0.2ms | 0.2ms | 0.2ms | 0.2ms | |
| Total power dissipation | | 300mW | | | | 300mW | | |
| I/O isolation voltage | | 1,500Vrms | | | | 500Vrms | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | -40 to +85°C -40 to +185°F | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | -40 to +100°C -40 to +212°F | | |
| I/O capacitance | Typ. | 0.8pF | | | | 0.8pF | | |
| | Max. | 1.5pF | | | | 1.5pF | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | | 1,000MΩ | | |
| Terminal layout and recommended PC board pattern | | | | | | | | |
| | | TOP VIEW | | | | TOP VIEW | | |
| • Tolerance: ±0.1 ±.004 | | mm | | inch | | | | |
| Safety standards | | — | | | | | | |
| Mass (weight) (approx.) | | 0.064g .002oz | | | | 0.064g .002oz | | |
| Packing style | | Tape and reel packing* | | | | Tape and reel packing* | | |

* Packing quantity of 1,000 pieces is possible.

PhotoMOS® Selector Chart

RF: Low on-resistance & low output capacitance

GU **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | RF SOP C×R10 | | RF SOP C×R10 | | RF SOP C×R10 Voltage-sensitive | | |
|---|----------------------------------|---|-----------|--|-----------|---|---------------------------|-------|
| | | 1 Form A | | 4 Form A | | 4 Form A | | |
| | | AC/DC | | AC/DC | | AC/DC | | |
| Appearance configuration *Standoff height included | |  | |  | |  | | |
| | | mm inch | | | | | | |
| Part No. | | AQY221R2S | AQY221N2S | AQS221R2S | AQS221N2S | AQS221FR2S | AQS221FN2S | |
| Load voltage | Peak AC | 40V | 40V | 40V | 40V | 40V | 40V | |
| | DC | 40V | 40V | 40V | 40V | 40V | 40V | |
| Output | Continuous load current | 1A | | | | | | |
| | | 0.5A | | | | | | |
| | Peak load current | | 0.25A | 0.12A | 0.16A | 0.06A | 0.16A | 0.06A |
| | Power dissipation | | 300mW | | 600mW | | 600mW | |
| | On resistance | Typ. | 0.8Ω | 9.5Ω | 0.8Ω | 9.5Ω | 0.75Ω | 9.5Ω |
| | | Max. | 1.25Ω | 12.5Ω | 1.25Ω | 12.5Ω | 1.25Ω | 12.5Ω |
| | Output capacitance (Typ.) | | 13pF | 1pF | 13pF | 1pF | 12.5pF | 1pF |
| | Off state leakage current (Max.) | | 10nA | | 10nA | | 10nA | |
| Input | LED forward current | | 50mA | | 50mA | | Input voltage: 6V | |
| | LED reverse voltage | | 5V | | 5V | | Input reverse voltage: 5V | |
| | Peak forward current | | 1A | | 1A | | — | |
| | Power dissipation | | 75mW | | 75mW | | 260mW (65mW per channel) | |
| | LED operate current | Typ. | 0.5mA | 0.9mA | 0.5mA | 0.9mA | Operate voltage: 1.3V | |
| | | Max. | 3mA | 3mA | 3mA | 3mA | 4V | |
| | LED turn off current | Min. | 0.1mA | 0.2mA | 0.1mA | 0.1mA | Turn off voltage: 0.8V | |
| Typ. | | 0.4mA | 0.85mA | 0.4mA | 0.85mA | 1.3V | | |
| LED dropout voltage | | Typ. 1.25V (1.14V at I _F = 5mA) Max. 1.5V | | Typ. 1.25V (1.14V at I _F = 5mA) Max. 1.5V | | Input current (Typ.): 8.5mA (V _{IN} = 5V) | | |
| Turn on time | Typ. | 0.1ms | 0.03ms | 0.15ms | 0.03ms | 0.07ms | 0.02ms | |
| | Max. | 0.5ms | 0.5ms | 0.5ms | 0.2ms | 0.5ms | 0.5ms | |
| Turn off time | Typ. | 0.06ms | 0.03ms | 0.06ms | 0.03ms | 0.07ms | 0.02ms | |
| | Max. | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | |
| Total power dissipation | | 350mW | | 650mW | | 650mW | | |
| I/O isolation voltage | | 500Vrms | 1,500Vrms | 500Vrms | | 500Vrms | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | | |
| | Storage | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | |
| I/O capacitance | Typ. | 0.8pF | | 0.8pF | | 0.8pF | | |
| | Max. | 1.5pF | | 1.5pF | | 1.5pF | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | 1,000MΩ | | 1,000MΩ | | |
| Terminal layout and recommended PC board pattern | |  | |  | |  | | |
| • Tolerance: ±0.1 ±.004 mm inch | | TOP VIEW | | TOP VIEW | | TOP VIEW | | |
| Safety standards | | — | | — | | — | | |
| Mass (weight) (approx.) | | 0.084g .003oz | | 0.195g .007oz | | 0.195g .007oz | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | | |

RF: Low on-resistance & low output capacitance **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | RF VSSOP C×R | | RF SSOP C×R | | | RF SOP C×R | | | |
|--|---------------------------------|--|----------|---------------------------------------|-----------|-----------|---------------------------------------|-----------|-----------|-----------|
| | | 1 Form A | | 1 Form A | | | 1 Form A | | | |
| | | AC/DC | | AC/DC | | | AC/DC | | | |
| Appearance configuration *Standoff height included mm inch | | | | | | | | | | |
| | | Part No. | | AQY222R2T | AQY225R3T | AQY222R2V | AQY225R2V | AQY225R3V | AQY222R1S | AQY225R1S |
| Load voltage | Peak AC | 60V | 100V | 60V | 80V | 100V | 60V | 80V | 80V | |
| | DC | 60V | 100V | 60V | 80V | 100V | 60V | 80V | 80V | |
| Output | Continuous load current | 1A | | | | | | | | |
| | | 0.5A | | | | | | | | |
| | 0.4A | 0.12A | | 0.12A | | 0.12A | | 0.15A | | |
| | Peak load current | 1.2A | 0.3A | 1.2A | 0.3A | 0.3A | 1A | 0.7A | 0.45A | |
| | Power dissipation | 250mW | | 250mW | | | 300mW | | | |
| | On resistance | Typ. | 0.8Ω | 8.8Ω | 0.8Ω | 10.5Ω | 8.8Ω | 0.8Ω | 0.8Ω | 10.5Ω |
| | | Max. | 1.25Ω | 14Ω | 1.25Ω | 15Ω | 14Ω | 1.2Ω | 1.2Ω | 15Ω |
| Output capacitance (Typ.) | | 27pF | 5.8pF | 27pF | 4.5pF | 5.8pF | 24.5pF | 37.5pF | 4.5pF | |
| Off state leakage current (Max.) | | 10nA | | 10nA | | | 10nA | | | |
| Input | LED forward current | 50mA | | 50mA | | | 50mA | | | |
| | LED reverse voltage | 5V | | 5V | | | 5V | | | |
| | Peak forward current | 1A | | 1A | | | 1A | | | |
| | Power dissipation | 75mW | | 75mW | | | 75mW | | | |
| | LED operate current | Typ. | 0.4mA | | 0.5mA | | | 0.5mA | | |
| | | Max. | 3mA | | 3mA | | | 3mA | | |
| | LED turn off current | Min. | 0.1mA | | 0.1mA | | | 0.1mA | | |
| Typ. | | 0.35mA | | 0.45mA | | | 0.45mA | | | |
| LED dropout voltage | Typ. | 1.14V (1.35V at I _F = 50mA) | | 1.32V (1.14V at I _F = 5mA) | | | 1.32V (1.14V at I _F = 5mA) | | | |
| | Max. | 1.5V | | 1.5V | | | 1.5V | | | |
| Turn on time | Typ. | 0.12ms | 0.04ms | 0.15ms | 0.05ms | | 0.15ms | 0.25ms | 0.05ms | |
| | Max. | 0.5ms | 0.5ms | 0.5ms | | | 0.5ms | 0.75ms | 0.5ms | |
| Turn off time | Typ. | 0.08ms | 0.05ms | 0.08ms | 0.05ms | | 0.06ms | 0.08ms | 0.05ms | |
| | Max. | 0.2ms | 0.2ms | 0.2ms | | | 0.2ms | 0.2ms | 0.2ms | |
| Total power dissipation | | 300mW | | 300mW | | | 350mW | | | |
| I/O isolation voltage | | 200Vrms | | 1,500Vrms | | | 1,500Vrms | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | | | -40 to +85°C -40 to +185°F | | | |
| | Storage | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | | -40 to +100°C -40 to +212°F | | | |
| I/O capacitance | Typ. | 0.4pF | | 0.8pF | | | 0.8pF | | | |
| | Max. | 1.5pF | | 1.5pF | | | 1.5pF | | | |
| Initial I/O isolation resistance (Min.) | | — | | 1,000MΩ | | | 1,000MΩ | | | |
| Terminal layout and recommended PC board pattern | | | | | | | | | | |
| | • Tolerance: ±0.1 ±.004 mm inch | | TOP VIEW | | | TOP VIEW | | | TOP VIEW | |
| Safety standards | | — | | — | | | — | UL/C-UL | — | |
| Mass (weight) (approx.) | | 0.026g .001oz | | 0.064g .002oz | | | 0.084g .003oz | | | |
| Packing style | | Tape and reel packing | | Tape and reel packing* | | | Tube packing, Tape and reel packing | | | |

* Packing quantity of 1,000 pieces is possible.

PhotoMOS® Selector Chart

RF: Low on-resistance & low output capacitance **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | RF SOP CxR | RF SOP Low on-resistance | | RF Low on-resistance | | |
|---|---|---------------------------------------|---------------------------------------|----------|---|---------|------|
| | | 2 Form A | 1 Form A | | 1 Form A | | |
| | | AC/DC | AC/DC | | AC/DC | | |
| Appearance configuration *Standoff height included | | | | | | | |
| mm inch | | | | | | | |
| Part No. | | AQW223R2S | AQV227NS | AQV224NS | AQV227N | AQV224N | |
| Output | Load voltage | Peak AC | 250V | 200V | 400V | 200V | 400V |
| | | DC | 250V | 200V | 400V | 200V | 400V |
| | Continuous load current *6-pin type: in case of A connection | 1A | | | | | |
| | | 0.5A | | | | | |
| | Peak load current | 0.14A | 0.05A | 0.04A | 0.07A | 0.05A | |
| | Power dissipation | 600mW | 450mW | | 360mW | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 11Ω | 30Ω | 70Ω | 30Ω | 70Ω |
| | | Max. | 15Ω | 50Ω | 100Ω | 50Ω | 100Ω |
| | Output capacitance (Typ.) | 33pF | 10pF | | 10pF | | |
| | Off state leakage current (Max.) | 10nA | 10nA | | 10nA | | |
| Input | LED forward current | 50mA | 50mA | | 50mA | | |
| | LED reverse voltage | 5V | 5V | | 5V | | |
| | Peak forward current | 1A | 1A | | 1A | | |
| | Power dissipation | 75mW | 75mW | | 75mW | | |
| | LED operate current | Typ. | 0.5mA | 0.7mA | | 0.9mA | |
| | | Max. | 3mA | 3mA | | 3mA | |
| | LED turn off current | Min. | 0.1mA | 0.4mA | | 0.4mA | |
| | | Typ. | 0.45mA | 0.65mA | | 0.85mA | |
| LED dropout voltage | Typ. | 1.32V (1.14V at I _F = 5mA) | 1.25V (1.14V at I _F = 5mA) | | 1.25V (1.14V at I _F = 5mA) | | |
| | Max. | 1.5V | 1.5V | | 1.5V | | |
| Turn on time | Typ. | 0.15ms | 0.12ms | 0.1ms | 0.2ms | | |
| | Max. | 0.5ms | 0.5ms | 0.5ms | 0.5ms | | |
| Turn off time | Typ. | 0.05ms | 0.05ms | | 0.08ms | | |
| | Max. | 0.2ms | 0.2ms | | 0.2ms | | |
| Total power dissipation | | 650mW | 500mW | | 410mW | | |
| I/O isolation voltage | | 1,500Vrms | 1,500Vrms | | 1,500Vrms | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | | |
| | Storage | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | |
| I/O capacitance | Typ. | 0.8pF | 0.8pF | | 0.8pF | | |
| | Max. | 1.5pF | 1.5pF | | 1.5pF | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | 1,000MΩ | | 1,000MΩ | | |
| Terminal layout and recommended PC board pattern | | | | | Through hole terminal Surface mount terminal | | |
| • Tolerance: ±0.1 ±.004 | mm inch | TOP VIEW | TOP VIEW | | | | |
| Safety standards | | — | UL/C-UL | | UL/C-UL | | |
| Mass (weight) (approx.) | | 0.195g .007oz | 0.125g .004oz | | 0.453g .016oz | | |
| Packing style | | | Tube packing, Tape and reel packing | | | | |

RF: Low on-resistance & low output capacitance **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

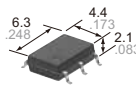
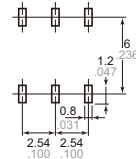
| Product name | | RF SOP Low on-resistance | | RF Low on-resistance | | RF SOP CxR | |
|---|-----------|---------------------------------------|--|---------------------------------------|---------|---------------------------------------|--|
| | | 2 Form A | | 2 Form A | | 4 Form A | |
| | | AC/DC | | AC/DC | | AC/DC | |
| Appearance configuration *Standoff height included | | | | | | | |
| mm inch | | | | | | | |
| Part No. | | AQW227NS | | AQW227N | AQW224N | AQS225R2S | |
| Load voltage | Peak AC | 200V | | 200V | 400V | 80V | |
| | DC | 200V | | 200V | 400V | 80V | |
| Continuous load current | 1A | | | | | | |
| | 0.5A | | | | | | |
| Peak load current | | 0.15A | | 0.15A | 0.12A | 0.2A | |
| Power dissipation | | 600mW | | 800mW | | 600mW | |
| On resistance | Typ. | 30Ω | | 30Ω | 70Ω | 10.5Ω | |
| | Max. | 50Ω | | 50Ω | 100Ω | 15Ω | |
| Output capacitance (Typ.) | | 10pF | | 10pF | | 4.5pF | |
| Off state leakage current (Max.) | | 10nA | | 10nA | | 10nA | |
| LED forward current | | 50mA | | 50mA | | 50mA | |
| | | 5V | | 5V | | 5V | |
| Peak forward current | | 1A | | 1A | | 1A | |
| Power dissipation | | 75mW | | 75mW | | 75mW | |
| LED operate current | Typ. | 0.7mA | | 0.9mA | | 0.9mA | |
| | Max. | 3mA | | 3mA | | 3mA | |
| LED turn off current | Min. | 0.4mA | | 0.4mA | | 0.3mA | |
| | Typ. | 0.65mA | | 0.8mA | | 0.85mA | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | | 1.25V (1.14V at I _F = 5mA) | | 1.25V (1.14V at I _F = 5mA) | |
| | Max. | 1.5V | | 1.5V | | 1.5V | |
| Turn on time | Typ. | 0.25ms | | 0.2ms | | 0.04ms | |
| | Max. | 0.5ms | | 0.5ms | | 0.3ms | |
| Turn off time | Typ. | 0.08ms | | 0.08ms | | 0.07ms | |
| | Max. | 0.2ms | | 0.2ms | | 0.2ms | |
| Total power dissipation | | 650mW | | 850mW | | 650mW | |
| I/O isolation voltage | | 1,500Vrms | | 1,500Vrms | | 1,500Vrms | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | |
| | Storage | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | |
| I/O capacitance | Typ. | 0.8pF | | 0.8pF | | 0.8pF | |
| | Max. | 1.5pF | | 1.5pF | | 1.5pF | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | 1,000MΩ | | 1,000MΩ | |
| Terminal layout and recommended PC board pattern | | | | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | | | | | | |
| Safety standards | | UL/C-UL | | UL/C-UL | | — | |
| Mass (weight) (approx.) | | 0.195g .007oz | | 0.5g .018oz | | 0.195g .007oz | |
| Packing style | | | | Tube packing, Tape and reel packing | | | |

PhotoMOS[®] Selector Chart

HE: Low on-resistance & Economical **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| | | | | | | | | | | | | | |
|---|---|---|--------|--------|--------|--------|--------|--------------|-----------|--------------|---------|--------------|------|
| Product name | | HE | | | | | | | | | | | |
| | | 1 Form A | | | | | | | | | | | |
| | | AC/DC | | | | | | | | | | | |
| Appearance configuration *Standoff height included | | | | | | | | | | | | | |
| Part No. | | AQV251 | AQV252 | AQV255 | AQV257 | AQV253 | AQV254 | AQV259 | AQV258 | AQV253H | AQV254H | AQV256H | |
| Load voltage | Peak AC | 40V | 60V | 100V | 200V | 250V | 400V | 1,000V | 1,500V | 250V | 400V | 600V | |
| | DC | 40V | 60V | 100V | 200V | 250V | 400V | 1,000V | 1,500V | 250V | 400V | 600V | |
| Output | Continuous load current *6-pin type: in case of A connection | | | | | | | | | | | | |
| | Peak load current | 1.8A | 1.5A | 1.0A | 0.75A | 0.6A | 0.5A | 0.09A | 0.06A | 0.6A | 0.5A | 0.4A | |
| | Power dissipation | 360mW | | | | | | | | | | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 0.6Ω | 0.74Ω | 1.8Ω | 2.6Ω | 5.5Ω | 12.4Ω | 85Ω | 345Ω | 5.5Ω | 12.4Ω | 20Ω |
| | | Max. | 1Ω | 1.4Ω | 2.5Ω | 4Ω | 8Ω | 16Ω | 200Ω | 500Ω | 8Ω | 16Ω | 30Ω |
| | Output capacitance (Typ.) | | 350pF | | | 170pF | | | 80pF | | 170pF | | 70pF |
| | Off state leakage current (Max.) | | 1μA | | | | | | 10μA | | 1μA | | |
| Input | LED forward current | 50mA | | | | | | | | | | | |
| | LED reverse voltage | 5V | | | | | | | | | | | |
| | Peak forward current | 1A | | | | | | | | | | | |
| | Power dissipation | 75mW | | | | | | | | | | | |
| | LED operate current | Typ. | 0.9mA | | | | | | | | | 1.4mA | |
| | | Max. | 3mA | | | | | | | | | 3mA | |
| | LED turn off current | Min. | 0.4mA | | | | | | | | | 0.4mA | |
| | Typ. | 0.8mA | | | | | | | | | 1.3mA | | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | | | | | | | | | | | |
| | Max. | 1.5V | | | | | | | | | | | |
| Turn on time | Typ. | 1.7ms | 1.4ms | 0.9ms | 1.5ms | 0.8ms | | 0.6ms | 0.35ms | 2.4ms | 1.8ms | 1.2ms | |
| | Max. | 3ms | 3ms | 2ms | 3ms | 2ms | | 1ms | 1ms | 4ms | 3ms | 3ms | |
| Turn off time | Typ. | 0.07ms | | 0.09ms | 0.1ms | 0.06ms | 0.05ms | 0.04ms | 0.04ms | 0.06ms | 0.05ms | 0.06ms | |
| | Max. | 0.2ms | | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | 0.2ms | |
| Total power dissipation | | 410mW | | | | | | | | | | | |
| I/O isolation voltage | | 1,500Vrms | | | | | | | 5,000Vrms | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | | | | | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | | | | | | | | |
| I/O capacitance | Typ. | 1.3pF | | | | | | | | | | | |
| | Max. | 3pF | | | | | | | | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | | | | | | | | | |
| Terminal layout and recommended PC board pattern | | | | | | | | | | | | | |
| | | • Tolerance: ±0.1 ±.004 mm inch BOTTOM VIEW TOP VIEW | | | | | | | | | | | |
| Safety standards | | UL/C-UL | | | | | | UL/C-UL, VDE | | UL/C-UL, BSI | | UL/C-UL, VDE | |
| Mass (weight) (approx.) | | 0.453g .016oz | | | | | | | | | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | | | | | | | |

HE: Low on-resistance & Economical **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

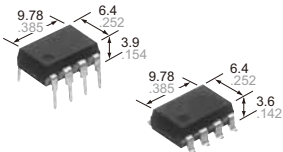
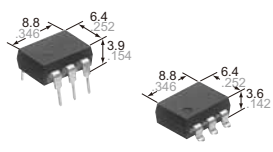
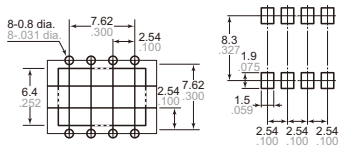
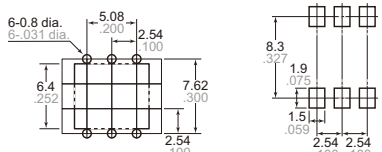
| Product name | | HE SOP High Capacity | | | | |
|---|--|--|----------------------|--------------|----------------------|-------|
| | | 1 Form A (6 pins) | | | | |
| | | AC/DC | | | | |
| Appearance configuration *Standoff height included | |  | | | | |
| Part No. | | AQV252G2S | New AQV252G3S | AQV255GS | New AQV255G3S | |
| Output | Load voltage | Peak AC | 50V | 60V | 80V | 100V |
| | | DC | 50V | 60V | 80V | 100V |
| | Continuous load current *6-pin type: in case of A connection | 3A | 3A | 3.3A | 1.25A | 2.2A |
| | | 2A | | | | |
| | | 1A | | | | |
| | Peak load current | 6A | 10A | 3A | 6A | |
| | Power dissipation | 450mW | | | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 0.04Ω | 0.033Ω | 0.09Ω | 0.07Ω |
| | | Max. | 0.07Ω | 0.06Ω | 0.15Ω | 0.12Ω |
| | Output capacitance (Typ.) | 360pF, 510pF, 300pF, 430pF | | | | |
| Off state leakage current (Max.) | 1μA | | | | | |
| Input | LED forward current | 50mA | | | | |
| | LED reverse voltage | 5V | | | | |
| | Peak forward current | 1A | | | | |
| | Power dissipation | 75mW | | | | |
| | LED operate current | Typ. | 0.6mA | 0.5mA | 0.5mA | 0.5mA |
| | | Max. | 3mA | 3mA | 3mA | 3mA |
| | LED turn off current | Min. | 0.2mA | 0.2mA | 0.2mA | 0.2mA |
| | | Typ. | 0.5mA | 0.4mA | 0.4mA | 0.4mA |
| LED dropout voltage | Typ. | 1.32V (1.14V at I _F = 5mA) | | | | |
| | Max. | 1.5V | | | | |
| Turn on time | Typ. | 1.5ms | 1.8ms | 1.3ms | 1.8ms | |
| | Max. | 5.0ms | 5.0ms | 5.0ms | 5.0ms | |
| Turn off time | Typ. | 0.08ms | 0.15ms | 0.1ms | 0.15ms | |
| | Max. | 0.5ms | 0.5ms | 0.5ms | 0.5ms | |
| Total power dissipation | 500mW | | | | | |
| I/O isolation voltage | 1,500Vrms | | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | |
| I/O capacitance | Typ. | 0.8pF | | | | |
| | Max. | 1.5pF | | | | |
| Initial I/O isolation resistance (Min.) | 1,000MΩ | | | | | |
| Terminal layout and recommended PC board pattern |  | | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | TOP VIEW | | | | |
| Safety standards | UL/C-UL, VDE | | UL/C-UL | UL/C-UL, VDE | UL/C-UL | |
| Mass (weight) (approx.) | 0.125g .004oz | | | | | |
| Packing style | Tube packing, Tape and reel packing | | | | | |

PhotoMOS® Selector Chart

HE: Low on-resistance & Economical **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | HE High Capacity | | | | |
|---|---|---------------------------------------|---------|---------------------|---------------------|-------|
| | | 1 Form A | | | | |
| | | AC/DC | | | | |
| Appearance configuration *Standoff height included | | | | | | |
| Part No. | | AQV251G | AQV252G | New AQV252G3 | New AQV255G3 | |
| Output | Load voltage | Peak AC | 30V | 60V | 60V | 100V |
| | | DC | 30V | 60V | 60V | 100V |
| | Continuous load current *6-pin type: in case of A connection | 3A | 3.5A | 2.5A | 3.5A | 2.4A |
| | | 2A | | | | |
| | | 1A | | | | |
| | Peak load current | 6.0A | 6.0A | 10A | 7.0A | |
| | Power dissipation | 600mW | | | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 0.035Ω | 0.08Ω | 0.033Ω | 0.07Ω |
| | | Max. | 0.08Ω | 0.12Ω | 0.06Ω | 0.12Ω |
| | Output capacitance (Typ.) | 330pF | | | | |
| Off state leakage current (Max.) | 1μA | | | | | |
| Input | LED forward current | 50mA | | | | |
| | LED reverse voltage | 5V | | | | |
| | Peak forward current | 1A | | | | |
| | Power dissipation | 75mW | | | | |
| | LED operate current | Typ. | 0.55mA | 0.5mA | 0.5mA | 0.5mA |
| | | Max. | 3mA | 3mA | 3mA | 3mA |
| | LED turn off current | Min. | 0.2mA | | | |
| Typ. | | 0.4mA | | | | |
| LED dropout voltage | Typ. | 1.32V (1.14V at I _F = 5mA) | | | | |
| | Max. | 1.5V | | | | |
| Turn on time | Typ. | 1.8ms | | | | |
| | Max. | 5ms | | | | |
| Turn off time | Typ. | 0.1ms | 0.25ms | 0.15ms | 0.15ms | |
| | Max. | 0.5ms | 0.5ms | 0.5ms | 0.5ms | |
| Total power dissipation | 650mW | | | | | |
| I/O isolation voltage | 1,500Vrms | | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | |
| I/O capacitance | Typ. | 0.8pF | | | | |
| | Max. | 1.5pF | | | | |
| Initial I/O isolation resistance (Min.) | 1,000MΩ | | | | | |
| Terminal layout and recommended PC board pattern | | | | | | |
| • Tolerance: ±0.1 ±.004 | mm inch | | | | | |
| Safety standards | UL/C-UL, VDE | UL/C-UL | UL/C-UL | UL/C-UL, VDE | | |
| Mass (weight) (approx.) | 0.453g .016oz | | | | | |
| Packing style | Tube packing, Tape and reel packing | | | | | |

HE: Low on-resistance & Economical **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | HE | | | | | |
|---|---|--|-------|---|--------|--------------|-------|
| | | 2 Form A | | 1 Form B | | | |
| | | AC/DC | | AC/DC | | | |
| Appearance configuration *Standoff height included | |  | |  | | | |
| Part No. | | AQW254 | | AQV453 | AQV454 | AQV454H | |
| Load voltage | Peak AC | 400V | | 250V | 400V | 400V | |
| | DC | 400V | | 250V | 400V | 400V | |
| Output | Continuous load current *6-pin type: in case of A connection | 1A | | | | | |
| | | 0.5A | | | | | |
| | | | 0.12A | 0.2A | 0.15A | 0.15A | |
| | Peak load current | | 0.36A | | 0.6A | 0.5A | |
| | Power dissipation | | 800mW | | 360mW | | |
| | On resistance *6-pin type: in case of A connection | Typ. | 10.2Ω | | 5.5Ω | 11Ω | |
| | | Max. | 16Ω | | 8Ω | 16Ω | |
| Output capacitance (Typ.) | | 170pF | | 350pF | 170pF | | |
| Off state leakage current (Max.) | | 1μA | | 1μA | | 10μA | |
| Input | LED forward current | | 50mA | | 50mA | | |
| | LED reverse voltage | | 5V | | 5V | | |
| | Peak forward current | | 1A | | 1A | | |
| | Power dissipation | | 75mW | | 75mW | | |
| | LED operate current | Typ. | 0.9mA | | 1mA | 0.9mA | 1.4mA |
| | | Max. | 3mA | | 3mA | 3mA | 3mA |
| | LED turn off current | Min. | 0.4mA | | 0.4mA | 0.4mA | 0.4mA |
| Typ. | | 0.8mA | | 0.9mA | 0.8mA | 1.3mA | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | | 1.25V (1.14V at I _F = 5mA) | | | |
| | Max. | 1.5V | | 1.5V | | | |
| Turn on time | Typ. | 0.8ms | | 1.52ms | 1.2ms | 1.8ms | |
| | Max. | 2ms | | 3ms | 2ms | 3ms | |
| Turn off time | Typ. | 0.04ms | | 0.4ms | 0.36ms | 0.4ms | |
| | Max. | 0.2ms | | 1ms | 1ms | 1ms | |
| Total power dissipation | | 850mW | | 410mW | | | |
| I/O isolation voltage | | 1,500Vrms | | 1,500Vrms | | 5,000Vrms | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | | | |
| | Storage | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | | |
| I/O capacitance | Typ. | 0.8pF | | 1.3pF | | | |
| | Max. | 1.5pF | | 3pF | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | 1,000MΩ | | | |
| Terminal layout and recommended PC board pattern | | Through hole terminal Surface mount terminal  | | Through hole terminal Surface mount terminal  | | | |
| • Tolerance: ±0.1 ±0.004 mm inch | | BOTTOM VIEW TOP VIEW | | BOTTOM VIEW TOP VIEW | | TOP VIEW | |
| Safety standards | | UL/C-UL | | UL/C-UL | | UL/C-UL, BSI | |
| Mass (weight) (approx.) | | 0.5g .018oz | | 0.453g .016oz | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | |

PhotoMOS[®] Selector Chart

HE: Low on-resistance & Economical

GU **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | HE | | |
|---|-------------------------|--|--|-------|
| | | 2 Form B | 1 Form A & 1 Form B | |
| Appearance configuration *Standoff height included | | | | |
| Part No. | | AQW454 | AQW654 | |
| Load voltage | Peak AC | 400V | 400V | |
| | DC | 400V | 400V | |
| Output | Continuous load current | 1A | | |
| | | 0.5A | | |
| | Peak load current | 0.36A | 0.36A | |
| | Power dissipation | 800mW | 800mW | |
| On resistance | Typ. | 11Ω | 11Ω | |
| | Max. | 16Ω | 16Ω | |
| Output capacitance (Typ.) | | 170pF | 170pF | |
| Off state leakage current (Max.) | | 1μA | 1μA | |
| Input | LED forward current | | 50mA | |
| | LED reverse voltage | | 5V | |
| | Peak forward current | | 1A | |
| | Power dissipation | | 75mW | |
| | LED operate current | Typ. | 0.9mA | 0.9mA |
| | | Max. | 3mA | 3mA |
| | LED turn off current | Min. | 0.4mA | 0.4mA |
| Typ. | | 0.8mA | 0.8mA | |
| LED dropout voltage | Typ. | 1.25V (1.14V at I _F = 5mA) | 1.25V (1.14V at I _F = 5mA) | |
| | Max. | 1.5V | 1.5V | |
| Turn on time | Typ. | 1.2ms | 0.8ms (N.O.), 1.2ms (N.C.) | |
| | Max. | 2ms | 2ms | |
| Turn off time | Typ. | 0.36ms | 0.04ms (N.O.), 0.36ms (N.C.) | |
| | Max. | 1ms | 1ms | |
| Total power dissipation | | 850mW | 850mW | |
| I/O isolation voltage | | 1,500Vrms | 1,500Vrms | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | -40 to +85°C -40 to +185°F | |
| | Storage | -40 to +100°C -40 to +212°F | -40 to +100°C -40 to +212°F | |
| I/O capacitance | Typ. | 0.8pF | 0.8pF | |
| | Max. | 1.5pF | 1.5pF | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | 1,000MΩ | |
| Terminal layout and recommended PC board pattern | | <p>Through hole terminal Surface mount terminal</p> | <p>Through hole terminal Surface mount terminal</p> | |
| • Tolerance: ±0.1 ±.004 mm inch | | | | |
| Safety standards | | UL/C-UL | UL/C-UL | |
| Mass (weight) (approx.) | | 0.5g .018oz | 0.5g .018oz | |
| Packing style | | Tube packing, Tape and reel packing | | |

HF: Low on-resistance **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | HF | | | | | | | | |
|---|---|-------------------------------------|--------|--------|--------|-------------------------------|--------|--------|--------|-------|
| | | 1 Form A | | | | | | | | |
| | | DC | | | | AC/DC | | | | |
| Appearance configuration *Standoff height included | | | | | | | | | | |
| Part No. | | AQV101 | AQV102 | AQV103 | AQV104 | AQV201 | AQV202 | AQV203 | AQV204 | |
| Load voltage | Peak AC | — | | | | | | | | |
| | DC | 40V | 60V | 250V | 400V | 40V | 60V | 250V | 400V | |
| Output | Continuous load current *6-pin type: in case of A connection | 1A | — | | | | | | | |
| | | 0.5A | 0.7A | 0.6A | 0.3A | 0.18A | 0.5A | 0.4A | 0.2A | 0.15A |
| | Peak load current | 1.8A | 1.5A | 0.6A | 0.5A | 1.8A | 1.5A | 0.6A | 0.5A | |
| | Power dissipation | 360mW | | | | | | | | |
| On resistance *6-pin type: in case of A connection | Typ. | 0.3Ω | 0.37Ω | 2.7Ω | 6.3Ω | 0.6Ω | 0.74Ω | 5.5Ω | 12.4Ω | |
| | Max. | 0.5Ω | 0.7Ω | 4Ω | 8Ω | 1Ω | 1.4Ω | 8Ω | 16Ω | |
| Output capacitance (Typ.) | | 600pF | | 300pF | | 350pF | | 170pF | | |
| Off state leakage current (Max.) | | 1μA | | | | | | | | |
| Input | LED forward current | | 50mA | | | | | | | |
| | LED reverse voltage | | 10V | | | | | | | |
| | Peak forward current | | 1A | | | | | | | |
| | Power dissipation | | 150mW | | | | | | | |
| | LED operate current | Typ. | 2.3mA | | | | 2.4mA | | | |
| | | Max. | 5mA | | | | 5mA | | | |
| | LED turn off current | Min. | 0.8mA | | | | | | | |
| Typ. | | 2.2mA | | | | | | | | |
| LED dropout voltage | Typ. | 2.3V | | | | | | | | |
| | Max. | 3V | | | | | | | | |
| Turn on time | Typ. | 0.23ms | 0.22ms | 0.13ms | 0.09ms | 0.38ms | 0.41ms | 0.21ms | 0.18ms | |
| | Max. | 1ms | 1ms | 1ms | 1ms | 1ms | 1ms | 1ms | 1ms | |
| Turn off time | Typ. | 0.07ms | | | 0.08ms | | | 0.07ms | | |
| | Max. | 1ms | | | 1ms | | | 1ms | | |
| Total power dissipation | | 410mW | | | | | | | | |
| I/O isolation voltage | | 1,500Vrms | | | | | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | | | | | |
| I/O capacitance | Typ. | 1.3pF | | | | | | | | |
| | Max. | 3pF | | | | | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | | | | | | |
| Terminal layout and recommended PC board pattern | | <p>Through hole terminal</p> | | | | <p>Surface mount terminal</p> | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | <p>BOTTOM VIEW</p> <p>TOP VIEW</p> | | | | | | | | |
| Safety standards | | UL/C-UL | | | | | | | | |
| Mass (weight) (approx.) | | 0.453g .016oz | | | | | | | | |
| Packing style | | Tube packing, Tape and reel packing | | | | | | | | |

PhotoMOS[®] Selector Chart

HS: High sensitivity **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | HS | | HS SOP | | |
|---|---|--------------------------------------|----------------------------|--------------------------------------|---------|-------|
| | | 1 Form A | | 1 Form A | | |
| | | AC/DC | | AC/DC | | |
| Appearance configuration *Standoff height included | | | | | | |
| mm inch | | | | | | |
| Part No. | | AQV234 | | AQY232S | AQY230S | |
| | | | | AQY234S | | |
| Output | Load voltage | Peak AC | 400V | 60V | 350V | 400V |
| | | DC | 400V | 60V | 350V | 400V |
| | Continuous load current *6-pin type: in case of A connection | 1A | | | | |
| | | 0.5A | | 0.5A | | |
| | | | 0.12A | | 0.12A | 0.1A |
| | Peak load current | | 0.3A | 1.5A | 0.3A | 0.24A |
| | Power dissipation | | 500mW | | 300mW | |
| | On resistance *6-pin type: in case of A connection | Typ. | 30Ω | 0.85Ω | 19Ω | 27Ω |
| | | Max. | 50Ω | 2.5Ω | 25Ω | 35Ω |
| | Output capacitance (Typ.) | | 45pF | 80pF | 32pF | 35pF |
| Off state leakage current (Max.) | | 1μA | | 1μA | | |
| Input | LED forward current | | 50mA | | 50mA | |
| | LED reverse voltage | | 5V | | 5V | |
| | Peak forward current | | 1A | | 1A | |
| | Power dissipation | | 75mW | | 75mW | |
| | LED operate current | Typ. | 0.31mA | | 0.35mA | |
| | | Max. | 0.5mA | | 0.5mA | |
| | LED turn off current | Min. | 0.1mA | | 0.1mA | |
| Typ. | | 0.29mA | | 0.3mA | | |
| LED dropout voltage | Typ. | 1.25V (1.1V at I _F = 2mA) | | 1.25V (1.1V at I _F = 2mA) | | |
| | Max. | 1.5V | | 1.5V | | |
| Turn on time | Typ. | 0.89ms | 1.5ms | 1.2ms | 0.8ms | |
| | Max. | 2ms | 5ms | 5ms | 5ms | |
| Turn off time | Typ. | 0.22ms | 0.15ms | 0.1ms | 0.1ms | |
| | Max. | 1ms | 2ms | 2ms | 2ms | |
| Total power dissipation | | 550mW | | 350mW | | |
| I/O isolation voltage | | 1,500Vrms | | 1,500Vrms | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | -40 to +85°C -40 to +185°F | | |
| | Storage | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | |
| I/O capacitance | Typ. | 0.8pF | | 0.8pF | | |
| | Max. | 1.5pF | | 1.5pF | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | 1,000MΩ | | |
| Terminal layout and recommended PC board pattern | | Through hole terminal | Surface mount terminal | | | |
| • Tolerance: ±0.1 ±0.04 | mm inch | | | | | |
| Safety standards | | UL/C-UL | | UL/C-UL, VDE | | |
| Mass (weight) (approx.) | | 0.453g .016oz | | 0.084g .003oz | | |
| Packing style | | Tube packing, Tape and reel packing | | | | |

PD: Flat & power **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

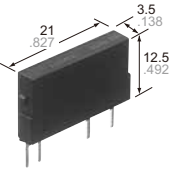
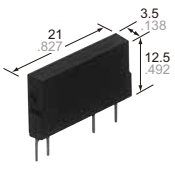
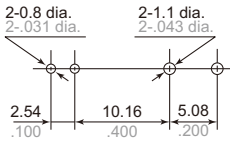
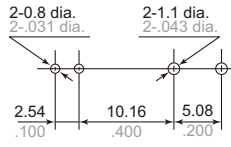
| Product name | | PD | | | |
|---|-------------------------|---|--------|--------|--------|
| | | 1 Form A | | | |
| | | AC/DC | | | |
| Appearance configuration *Standoff height included | | | | | |
| Part No. | | AQY272 | AQY275 | AQY277 | AQY274 |
| Load voltage | Peak AC | 60V | 100V | 200V | 400V |
| | DC | 60V | 100V | 200V | 400V |
| Output | Continuous load current | 2A | 1.3A | 0.65A | 0.35A |
| | | 1A | | | |
| | | 0.5A | | | |
| | Peak load current | 6A | 4A | 2A | 1A |
| Power dissipation | | 700mW | | | |
| On resistance | Typ. | 0.11Ω | 0.23Ω | 0.7Ω | 2.1Ω |
| | Max. | 0.18Ω | 0.34Ω | 1.1Ω | 3.2Ω |
| Output capacitance (Typ.) | | 1,400pF | | 600pF | |
| Off state leakage current (Max.) | | 10μA | | | |
| Input | LED forward current | | 50mA | | |
| | LED reverse voltage | | 5V | | |
| | Peak forward current | | 1A | | |
| | Power dissipation | | 75mW | | |
| | LED operate current | Typ. | 1mA | | |
| | | Max. | 3mA | | |
| | LED turn off current | Min. | 0.4mA | | |
| Typ. | | 0.9mA | | | |
| LED dropout voltage | Typ. | 1.25V (1.16V at I _F = 10mA) | | | |
| | Max. | 1.5V | | | |
| Turn on time | Typ. | 2.46ms | 2.4ms | 1.12ms | 1.65ms |
| | Max. | 5ms | 5ms | 5ms | 5ms |
| Turn off time | Typ. | 0.22ms | 0.21ms | 0.1ms | 0.08ms |
| | Max. | 3ms | 3ms | 3ms | 3ms |
| Total power dissipation | | 750mW | | | |
| I/O isolation voltage | | 2,500Vrms | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | |
| I/O capacitance | Typ. | 0.8pF | | | |
| | Max. | 1.5pF | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | |
| Terminal layout and recommended PC board pattern | | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | <p>Through hole terminal</p> <p>Surface mount terminal</p> <p>BOTTOM VIEW</p> <p>TOP VIEW</p> | | | |
| Safety standards | | UL/C-UL, VDE | | | |
| Mass (weight) (approx.) | | 0.62g .022oz | | | |
| Packing style | | Tube packing, Tape and reel packing | | | |

PhotoMOS® Selector Chart

Power: Slim & power **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

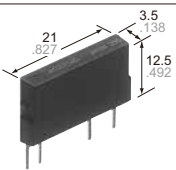
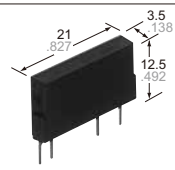
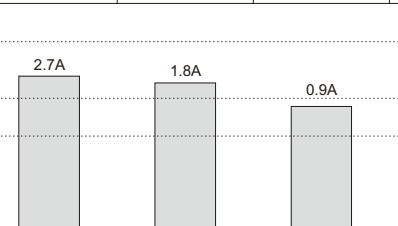
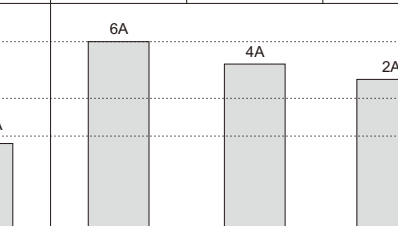
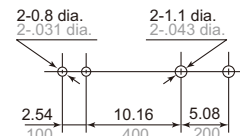

| Product name | | Power | | | | | | | | |
|---|----------------------|--|--------|--------|--------|---------|--------|--------|--------|--|
| | | 1 Form A | | | | | | | | |
| | | DC | | | | AC/DC | | | | |
| Appearance configuration *Standoff height included | | | | | | | | | | |
| Part No. | | AQZ102 | AQZ105 | AQZ107 | AQZ104 | AQZ202 | AQZ205 | AQZ207 | AQZ204 | |
| Load voltage | Peak AC | — | | | | | | | | |
| | DC | 60V | 100V | 200V | 400V | 60V | 100V | 200V | 400V | |
| Continuous load current | 3A | 4A | 2.6A | 1.3A | 0.7A | 3A | 2A | 1A | 0.5A | |
| | 1A | | | | | | | | | |
| Peak load current | | 9.0A | 6.0A | 3.0A | 1.5A | 9.0A | 6.0A | 3.0A | 1.5A | |
| Power dissipation | | 1.35W | | | | 1.6W | | | | |
| On resistance | Typ. | 0.05Ω | 0.081Ω | 0.34Ω | 1.06Ω | 0.11Ω | 0.23Ω | 0.7Ω | 2.1Ω | |
| | Max. | 0.09Ω | 0.17Ω | 0.55Ω | 1.6Ω | 0.18Ω | 0.34Ω | 1.1Ω | 3.2Ω | |
| Output capacitance (Typ.) | | 1,700pF | | 900pF | | 1,400pF | | 600pF | | |
| Off state leakage current (Max.) | | 10μA | | | | | | | | |
| Input | LED forward current | 50mA | | | | | | | | |
| | LED reverse voltage | 5V | | | | | | | | |
| | Peak forward current | 1A | | | | | | | | |
| | Power dissipation | 75mW | | | | | | | | |
| | LED operate current | Typ. | 1mA | | | | | | | |
| | | Max. | 3mA | | | | | | | |
| | LED turn off current | Min. | 0.4mA | | | | | | | |
| Typ. | | 0.9mA | | | | | | | | |
| LED dropout voltage | Typ. | 1.25V (1.16V at I _F = 10mA) | | | | | | | | |
| | Max. | 1.5V | | | | | | | | |
| Turn on time | Typ. | 1.66ms | 1.89ms | 0.83ms | 1.01ms | 2.46ms | 2.4ms | 1.12ms | 1.65ms | |
| | Max. | 5ms | 5ms | 5ms | 5ms | 5ms | 5ms | 5ms | 5ms | |
| Turn off time | Typ. | 0.15ms | 0.19ms | 0.08ms | 0.08ms | 0.22ms | 0.21ms | 0.10ms | 0.08ms | |
| | Max. | 3ms | 3ms | 3ms | 3ms | 3ms | 3ms | 3ms | 3ms | |
| Total power dissipation | | 1.35W | | | | 1.6W | | | | |
| I/O isolation voltage | | 2,500Vrms | | | | | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | | | | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | | | | | |
| I/O capacitance | Typ. | 0.8pF | | | | | | | | |
| | Max. | 1.5pF | | | | | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | | | | | | |
| Terminal layout and recommended PC board pattern | | | | | | | | | | |
| • Tolerance: ±0.1 ±.004 | | mm inch | | | | | | | | |
| Safety standards | | UL/C-UL, VDE | | | | | | | | |
| Mass (weight) (approx.) | | 1.65g .058oz | | | | | | | | |
| Packing style | | PA-N relay PC board type socket / Self clinching type socket | | | | | | | | |

Power: Slim & power **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | Power | | Power Voltage-sensitive | | | | |
|---|-------------------------|---|-------|---|---------------------------|---------|---------|------|
| | | 1 Form B | | 1 Form A | | | | |
| | | AC/DC | | DC | | | | |
| Appearance configuration *Standoff height included | |  | |  | | | | |
| Part No. | | AQZ404 | | AQZ102D | AQZ105D | AQZ107D | AQZ104D | |
| Load voltage | Peak AC | 400V | | — | | | | |
| | DC | 400V | | 60V | 100V | 200V | 400V | |
| Output | Continuous load current | 3A | 0.5A | | 3.6A | 2.3A | 1.1A | 0.6A |
| | | 1A | | | | | | |
| | Peak load current | 1.5A | | 9A | 6A | 3A | 1.5A | |
| | Power dissipation | 1.6W | | 1.35W | | | | |
| On resistance | Typ. | 2.8Ω | | 0.033Ω | 0.09Ω | 0.33Ω | 1.23Ω | |
| | Max. | 4.0Ω | | 0.09Ω | 0.17Ω | 0.55Ω | 1.6Ω | |
| Output capacitance (Typ.) | | 2,000pF | | 1,700pF | | 900pF | | |
| Off state leakage current (Max.) | | 10μA | | 10μA | | | | |
| Input | LED forward current | | 50mA | | Input voltage: 30V | | | |
| | LED reverse voltage | | 5V | | Input reverse voltage: 5V | | | |
| | Peak forward current | | 1A | | — | | | |
| | Power dissipation | | 75mW | | 300mW | | | |
| | LED operate current | Typ. | 1mA | | Operate voltage: 1.4V | | | |
| | | Max. | 3mA | | 4V | | | |
| | LED turn off current | Min. | 0.4mA | | Turn off voltage: 0.8V | | | |
| Typ. | | 0.9mA | | 1.3V | | | | |
| LED dropout voltage | | Typ. 1.25V (1.16V at I _F = 10mA) Max. 1.5V | | Input current (Typ.): 6.5mA | | | | |
| Turn on time | Typ. | 3.9ms | | 3.3ms | 2.2ms | 1.5ms | 1.2ms | |
| | Max. | 7.5ms | | 10ms | 10ms | 10ms | 10ms | |
| Turn off time | Typ. | 0.8ms | | 0.2ms | | 0.1ms | | |
| | Max. | 3ms | | 3ms | | 3ms | | |
| Total power dissipation | | 1.6W | | 1.35W | | | | |
| I/O isolation voltage | | 2,500Vrms | | 2,500Vrms | | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | -40 to +85°C (4V≤V _{IN} ≤6V), -40 to +75°C (6V≤V _{IN} ≤15V), -40 to +60°C (15V≤V _{IN} ≤30V) -40 to +185°F (4V≤V _{IN} ≤6V), -40 to +167°F (6V≤V _{IN} ≤15V), -40 to +140°F (15V≤V _{IN} ≤30V) | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | -40 to +100°C -40 to +212°F | | | | |
| I/O capacitance | Typ. | 0.8pF | | 0.8pF | | | | |
| | Max. | 1.5pF | | 1.5pF | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | 1,000MΩ | | | | |
| Terminal layout and recommended PC board pattern | |  | |  | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | BOTTOM VIEW | | BOTTOM VIEW | | | | |
| Safety standards | | UL/C-UL, VDE | | UL/C-UL, VDE | | | | |
| Mass (weight) (approx.) | | 1.65g .058oz | | 1.65g .058oz | | | | |
| Packing style | | PA-N relay PC board type socket / Self clinching type socket | | PA-N relay PC board type socket / Self clinching type socket | | | | |

PhotoMOS® Selector Chart

Power: Slim & power **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| Product name | | Power Voltage-sensitive | | | | Power High Capacity | | | | |
|--|-------------------------|---|------------------------|---------|---------|---|---------|---------|----------|-------|
| | | 1 Form A | | | | 1 Form A | | | | |
| | | AC/DC | | | | AC/DC | | | | |
| Appearance configuration *Standoff height included mm inch | |  | | | |  | | | | |
| | | New | | | | New | | | | |
| Part No. | | AQZ202D | AQZ205D | AQZ207D | AQZ204D | AQZ202G | AQZ205G | AQZ207G | AQZ206G2 | |
| Load voltage | Peak AC | 60V | 100V | 200V | 400V | 60V | 100V | 200V | 600V | |
| | DC | 60V | 100V | 200V | 400V | 60V | 100V | 200V | 600V | |
| Output | Continuous load current |  | | | |  | | | | |
| | | Peak load current | 9A | 6A | 3A | 1.5A | 12A | 8A | 6A | 3A |
| | | Power dissipation | 1.6W | | | | 1.6W | | | |
| | | On resistance | Typ. | 0.066Ω | 0.180Ω | 0.64Ω | 2.4Ω | 0.015Ω | 0.035Ω | 0.18Ω |
| | Max. | 0.18Ω | 0.34Ω | 1.1Ω | 3.2Ω | 0.03Ω | 0.06Ω | 0.35Ω | 0.8Ω | |
| Output capacitance (Typ.) | | 1,400pF | | 600pF | | 1,600pF | 1,240pF | 700pF | 3,000pF | |
| Off state leakage current (Max.) | | 10μA | | | | 10μA | | | | |
| Input | LED forward current | Input voltage: 30V | | | | 50mA | | | | |
| | LED reverse voltage | Input reverse voltage: 5V | | | | 5V | | | | |
| | Peak forward current | — | | | | 1A | | | | |
| | Power dissipation | 300mW | | | | 75mW | | | | |
| | LED operate current | Typ. | Operate voltage: 1.4V | | | | 1mA | | | |
| | | Max. | Operate voltage: 4V | | | | 3mA | | | |
| | LED turn off current | Min. | Turn off voltage: 0.8V | | | | 0.2mA | | | |
| | Typ. | Turn off voltage: 1.3V | | | | 0.9mA | | | | |
| LED dropout voltage | Typ. | Input current (Typ.): 6.5mA | | | | 1.25V | | | | |
| | Max. | | | | | 1.5V | | | | |
| Turn on time | Typ. | 5.8ms | 4.2ms | 2.7ms | 2.3ms | 3.8ms | 5.0ms | 2.5ms | 3.0ms | |
| | Max. | 10ms | 10ms | 10ms | 10ms | 10ms | 10ms | 10ms | 10ms | |
| Turn off time | Typ. | 0.2ms | | 0.1ms | | 0.2ms | 0.3ms | 0.2ms | 0.2ms | |
| | Max. | 3ms | | 3ms | | 3ms | 3ms | 3ms | 3ms | |
| Total power dissipation | | 1.6W | | | | 1.6W | | | | |
| I/O isolation voltage | | 2,500Vrms | | | | 2,500Vrms | | | | |
| Ambient temperature | Operating | -40 to +85°C (4V≤V _{IN} ≤6V), -40 to +75°C (6V≤V _{IN} ≤15V), -40 to +60°C (15V≤V _{IN} ≤30V) -40 to +185°F (4V≤V _{IN} ≤6V), -40 to +167°F (6V≤V _{IN} ≤15V), -40 to +140°F (15V≤V _{IN} ≤30V) | | | | -40 to +85°C -40 to +185°F | | | | |
| | Storage | -40 to +100°C -40 to +212°F | | | | -40 to +100°C -40 to +212°F | | | | |
| I/O capacitance | Typ. | 0.8pF | | | | 0.8pF | | | | |
| | Max. | 1.5pF | | | | 1.5pF | | | | |
| Initial I/O isolation resistance (Min.) | | 1,000MΩ | | | | 1,000MΩ | | | | |
| Terminal layout and recommended PC board pattern | |  | | | |  | | | | |
| • Tolerance: ±0.1 ±.004 mm inch | | BOTTOM VIEW | | | | BOTTOM VIEW | | | | |
| Safety standards | | UL/C-UL, VDE | | | | UL/C-UL, VDE | | | | |
| Mass (weight) (approx.) | | 1.65g .058oz | | | | 1.65g .058oz | | | | |
| Packing style | | PA-N relay PC board type socket / Self clinching type socket | | | | — | | | | |

Power: Slim & power **GU** **GE** **CC** **RF** **HE** **HF** **HS** **PD** **Power**

| | | | | |
|---|---------------------------|--|--------|--------|
| Product name | | Power DC High Capacity | | |
| | | 1 Form A | | |
| | | DC | | |
| Appearance configuration *Standoff height included | | | | |
| Part No. | | AQZ192 | AQZ197 | |
| Output | Load voltage | Peak AC | — | |
| | | DC | 60V | |
| | Continuous load current | 6A | 10A | 5A |
| | | 1A | | |
| | | 0.5A | | |
| | Peak load current | 30A | 15A | |
| | Power dissipation | 2W | | |
| | On resistance | Typ. | 0.008Ω | 0.031Ω |
| | | Max. | 0.015Ω | 0.05Ω |
| | Output capacitance (Typ.) | 2,100pF | | |
| Off state leakage current (Max.) | 10μA | | | |
| Input | LED forward current | 50mA | | |
| | LED reverse voltage | 5V | | |
| | Peak forward current | 1A | | |
| | Power dissipation | 75mW | | |
| | LED operate current | Typ. | 0.7mA | |
| | | Max. | 3mA | |
| | LED turn off current | Min. | 0.2mA | |
| Typ. | | 0.5mA | | |
| LED dropout voltage | Typ. | 1.35V (1.17V at I _F = 10mA) | | |
| | Max. | 1.5V | | |
| Turn on time | Typ. | 1ms | 0.7ms | |
| | Max. | 3ms | 3ms | |
| Turn off time | Typ. | 0.11ms | 0.05ms | |
| | Max. | 1ms | 1ms | |
| Total power dissipation | 2W | | | |
| I/O isolation voltage | 3,000Vrms | | | |
| Ambient temperature | Operating | -40 to +85°C -40 to +185°F | | |
| | Storage | -40 to +100°C -40 to +212°F | | |
| I/O capacitance | Typ. | 1.3pF | | |
| | Max. | 3pF | | |
| Initial I/O isolation resistance (Min.) | 1,000MΩ | | | |
| Terminal layout and recommended PC board pattern | | | | |
| • Tolerance: ±0.1 ±.004 | mm inch | | | |
| Safety standards | UL/C-UL, VDE | | | |
| Mass (weight) (approx.) | 4.3g .152oz | | | |
| Packing style | — | | | |

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