Panasonic



To Be Discontinued Last time buy: September 30, 2019



mm inch



RoHS compliant

High capacity up to 6A in a slim SIL package

FEATURES

1. High capacity type power PhotoMOS.

Can switch a wide range of currents and voltages. Can control various types of loads, from very small loads to a max. 6A AC/DC current for sequencers, motors, and lamps.

2. Low on-resistance and high sensitivity.

Low on-resistance of less than Typ. 0.036Ω (AQZ262). High sensitivity LED operate current of Typ. 1 mA.

3. AC/DC dual use

Bi-directional control is possible. There is no need to differentiate depending on the load as was necessary with the conventional SSR.

4. 4-pin SIL type

(L) 43.0 mm × (W) 9.0 mm × (H) 32.0 mm (L) 1.693 inch × (W) .354 inch × (H) 1.260 inch.

PhotoMOS[®] Power 1 Form A High Capacity (AQZ26O)

5. Low-level off state leakage current of max. 10 μA

6. Controls low-level analog signals The triac, photocoupler, or SSR cannot be used to control signals of less than several hundred mV. The high capacity type power PhotoMOS feature extremely low closed-circuit offset voltage to enable control of low-level analog signals without distortion.

TYPICAL APPLICATIONS

- Mercury relay replacement
- Compact motors, lamps, heaters
- OA equipment

TTFE5									
	Output rating*		Paakaga	Port No	Packing quantity				
	Load voltage	Load current	rackage	Fait No.	Inner carton	Outer carton			
AC/DC	60 V	6.0 A	SII 4 pip	AQZ262	20 202	200 pag			
dual use	400 V	1.0 A	SIL4-pill	AQZ264	20 pcs	200 pcs			

* Indicate the peak AC and DC values.

RATING

1. Absolute maximum ratings (Ambient temperature: 25°C 77°F)

Item		Symbol	AQZ262	AQZ264	Remarks
	LED forward current	IF	50 mA		
loout	LED reverse voltage	VR	5 V		
input	Peak forward current	FP	1 A		f = 100Hz, Duty factor = 0.1%
	Power dissipation	Pin	75 mA		
	Load voltage (peak AC)	VL	60 V	400 V	
Output	Continuous load current	l.	6.0 A	1.0 A	Peak AC, DC
Output	Peak load current	Ipeak	10.0 A	3.0 A	100 ms (1shot), VL = DC
	Power dissipation	Pout	3.0 W		
Total power dissipation		Рт	3.0 W		
I/O isolation voltage		Viso	1,500 Vrms		
Ambient temperature	Operating	Topr	−40 to +85°C −40 to 185°F		(Non-icing at low temperatures)
	Storage	Tstg	-40 to +100°C -40 to 212°F		

2. Electrical characteristics (Ambient temperature: 25°C 77°F)

Item			Symbol	AQZ262	AQZ264	Condition	
Input	LED operate current	Typical	- IFon	1.0 mA		IL = 100 mA VL = 10 V	
		Maximum		3.0 mA			
	I ED turn off current	Minimum	- I _{Foff}	0.4 mA		I∟ = 100 mA V∟ = 10 V	
		Typical		0.9 mA			
	LED dropout voltage	Typical		1.25 V (1.16 V at I⊧ = 10 mA)		l⊧ = 50 mA	
		Maximum	VF	1.5 V			
Output	On registeres	Typical	Ron	0.036 Ω	1.0 Ω	I⊧ = 10 mA	
	On resistance	Maximum		0.05 Ω	1.4 Ω	Within 1 s	
	Off state leakage current	Maximum	Leak	10 μΑ		$I_F = 0 \text{ mA}$ $V_L = \text{max}.$	
	Turn on time*	Typical	- -	5 ms	4 ms	I⊧ = 10 mA	
		Maximum		10 ms		$V_{L} = 10 \text{ V}$	
	Turn off time*	Typical	т	0.32 ms	0.14 ms	IF = 10 mA	
Transfor		Maximum		3.0 ms		$V_L = 10 \text{ V}$	
characteristics		Typical	<u> </u>	2.0 pF		f = 1 MHz V _B = 0 V	
	1/O capacitance	Maximum	Ciso	4.0 pF			
	Initial I/O isolation resistance Minimum		Riso	1,000 MΩ		500 V DC	
	Max. operating frequency	Maximum	_	0.5 cps		$\label{eq:IF} \begin{array}{l} {\sf I}_{\sf F} = 10 \mbox{ mA} \\ {\sf Duty factor} = 50\% \\ {\sf I}_{\sf L} = {\sf Max.}, \mbox{ V}_{\sf L} = {\sf Max.} \end{array}$	





3. Recommended operating conditions (Ambient temperature: 25°C 77°F) Please use under recommended operating conditions to obtain expected characteristics.

Ite	Symbol	Min.	Max.	Unit	
LED o	IF	10	30	mA	
107060	Load voltage (Peak AC)	VL	—	48	V
AQZZ0Z	Continuous load current	IL.	—	6.0	А
107064	Load voltage (Peak AC)	VL	—	320	V
AQZ204	Continuous load current	IL.	—	1.0	A

■ These products are not designed for automotive use.

If you are considering to use these products for automotive applications, please contact your local Panasonic Corporation technical representative.

REFERENCE DATA

1. Load current vs. ambient temperature characteristics

Allowable ambient temperature: -40 to +85°C -40 to +185°F



2. Load current vs. ambient temperature characteristics in adjacent mounting IL: Load current;

IL (max.): Maximum continuous load current



3. On resistance vs. ambient temperature characteristics

LED current: 10 mA;

Continuous load current: 6A (DC)(AQZ262) 1A (DC)(AQZ264)



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4. Turn on time vs. ambient temperature characteristics

LED current: 10 mA; Load voltage: 10 V (DC); Continuous load current: 100 mA (DC)



7. LED turn off current vs. ambient temperature characteristics

Load voltage: 10 V (DC); Continuous load current: 100 mA (DC)



10. Off state leakage current vs. load voltage characteristics

Ambient temperature: 25°C 77°F



13. Max. operating frequency vs. load voltage/ current characteristics

LED current: 10 mA; Ambient temperature: 25°C 77°F





LED current: 10 mA; Load voltage: 10 V (DC); Continuous load current: 100 mA (DC)



8. LED dropout voltage vs. ambient temperature characteristics

Sample: all types; LED current: 5 to 50 mA



11. Turn on time vs. LED forward current characteristics

Load voltage: 10 V (DC); Continuous load current: 100 mA (DC); Ambient temperature: 25°C 77°F



14. Output capacitance vs. applied voltage characteristics

Frequency: 10 KHz; Ambient temperature: 25°C 77°F



6. LED operate vs. ambient temperature characteristics Load voltage: 10 V (DC);





9. Current vs. voltage characteristics of output at MOS portion

Ambient temperature: 25°C 77°F



12. Turn off time vs. LED forward current characteristics

Load voltage: 10 V (DC); Continuous load current: 100 mA (DC); Ambient temperature: $25^{\circ}C$ $77^{\circ}F$



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