

Features

- ◇ 70W (8/20 μ s) Peak Pulse Power
- ◇ Low Capacitance ESD Protection
- ◇ SOT-363 Package
- ◇ RoHS Compliant
- ◇ Matte Tin Lead finish (Pb-Free)
- ◇ Protect Four High Speed Data Lines and Vcc
- ◇ Meet IEC61000-4-2 Level 4:
 - Contact Discharge > 8kV
 - Air Discharge > 15kV

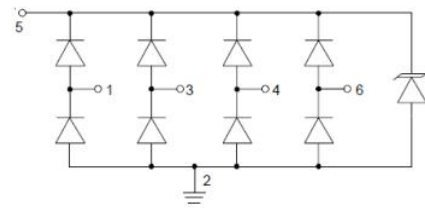
Applications

- ◇ USB 2.0
- ◇ USB OTG
- ◇ SIM Ports
- ◇ Gigabit Ethernet
- ◇ Notebook Computers
- ◇ Video Line Protection
- ◇ Digital Video Interface (DVI)
- ◇ IEEE 1394 Firewires Ports
- ◇ Monitors and Flat Panel Displays

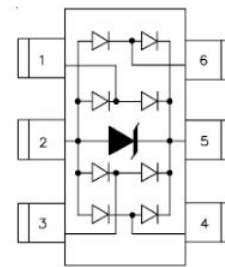
Ordering information

| Device | Package | Making |
|--------------|---------|--------|
| NUP4202W1T2G | SOT-363 | 63 |

Circuit Diagram



PIN Diagram



Maximum Ratings (Ta = 25°C)

| Symbol | Parameter | Value | Unit |
|-----------------|--------------------------------------|-------------|------|
| PPK | Peak Pulse Power | 70 | W |
| I _{PP} | Peak Pulse Current | 4.5 | A |
| VESD (Contact) | Contact ESD Voltage per IEC61000-4-2 | 20 | kV |
| VESD (Air) | Air ESD Voltage per IEC61000-4-2 | 20 | kV |
| T _J | Junction Temperature | -55 to +125 | °C |
| TSTG | Storage Temperature | -55 to +150 | °C |

NUP4202W1T2G

Electrical Characteristics (Ta = 25°C)

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|--------|------------------------------|--|-----|-----|-----|------|
| VRWM | Reverse Working Peak Voltage | | | | 5 | V |
| VBR | Reverse Breakdown Voltage | IT = 1mA | 6 | | | V |
| IR | Reverse Leakage Current | VRWM = 5V | | | 3 | μA |
| VC | Clamping Voltage | IPP = 1A (8/20μs) | | | 12 | V |
| VC | Clamping Voltage | IPP = 4.5A (8/20μs) | | | 18 | V |
| CJ | Capacitance | VR = 0V, f = 1MHz Between I/O pins | | | 0.4 | pF |
| CJ | Capacitance | VR = 0V, f = 1MHz Any I/O to ground | | | 1 | pF |

RATING AND CHARACTERISTIC CURVES (NUP4202W1T2G)

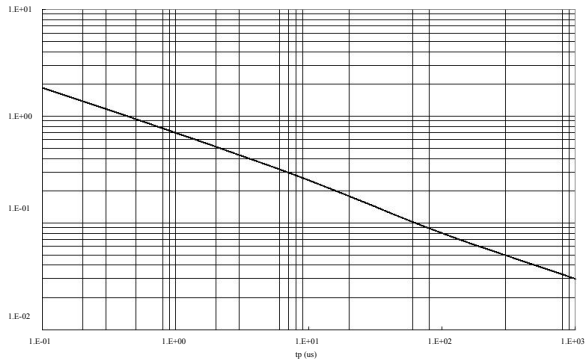


Figure 1. Peak Pulse Power Derating

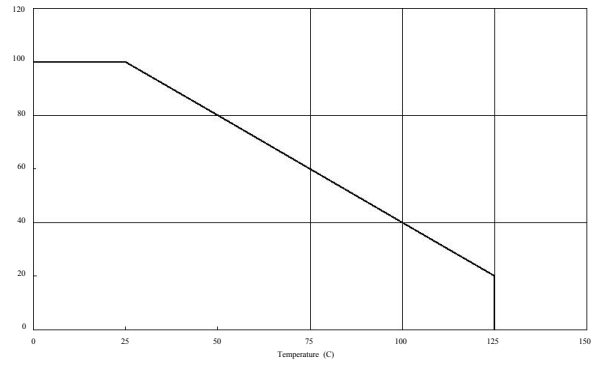


Figure 2. Peak Pulse Power Derating vs Temperature

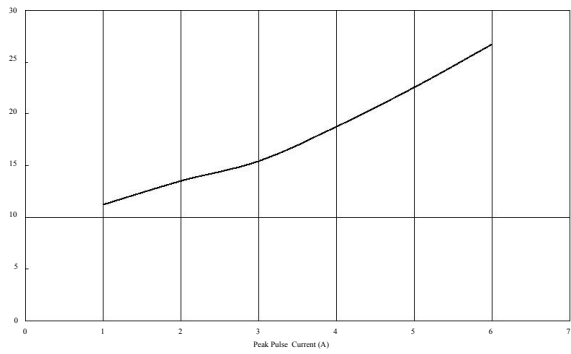


Figure 3. Peak Pulse Current vs Clamping Voltage

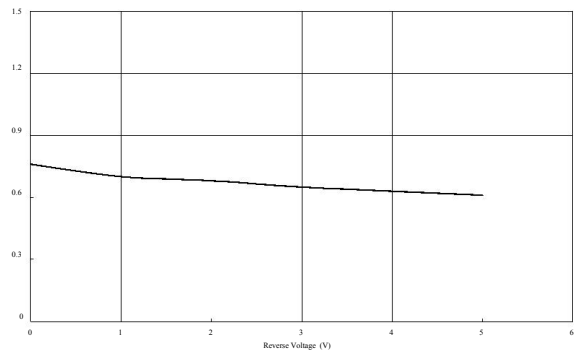
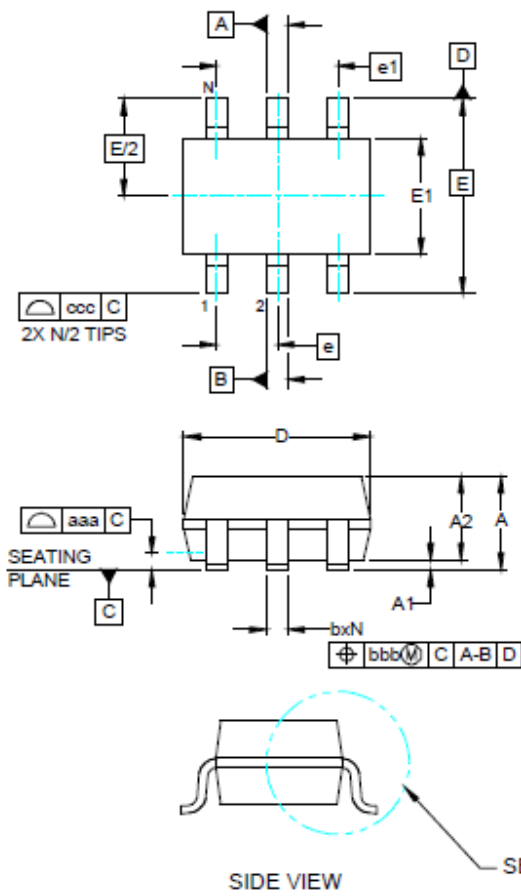
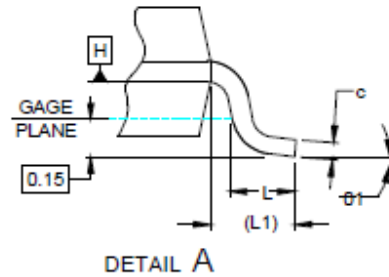


Figure 4. Reverse Voltage vs Capacitance

SOT-363 PACKAGE OUTLINE DIMENSIO



| DIM | INCHES | | | MILLIMETERS | | |
|------------|----------|------|------|-------------|------|------|
| | MIN | NOM | MAX | MIN | NOM | MAX |
| A | - | - | .043 | - | - | 1.10 |
| A1 | .000 | - | .004 | 0.00 | - | 0.10 |
| A2 | .028 | .035 | .039 | 0.70 | 0.90 | 1.00 |
| b | .008 | - | .012 | 0.15 | - | 0.30 |
| c | .003 | - | .009 | 0.08 | - | 0.22 |
| D | .071 | .079 | .087 | 1.80 | 2.00 | 2.20 |
| E1 | .045 | .049 | .053 | 1.15 | 1.25 | 1.35 |
| E | .083 BSC | | | 2.10 BSC | | |
| e | .028 BSC | | | 0.65 BSC | | |
| e1 | .051 | | | 1.30 BSC | | |
| L | .010 | .014 | .018 | 0.26 | 0.36 | 0.46 |
| L1 | (.017) | | | (0.42) | | |
| N | 6 | | | 6 | | |
| θ_1 | 0° | - | 8° | 0° | - | 8° |
| aaa | .004 | | | 0.10 | | |
| bbb | .004 | | | 0.10 | | |
| occ | .012 | | | 0.30 | | |



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[P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#) [SA90CA](#)