

Features

- ESD Protection: Level 4
- Low Clamping Voltage
- Protection 4 Lines I/O Port
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings

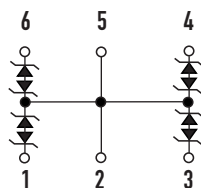
| | | |
|--|------------------|-----------------|
| IEC61000-4-2 (ESD) | Air | ±30KV |
| | Contact | ±30KV |
| Peak Pulse Current (8/20μs) | I _{PP} | 6A |
| Peak Pulse Power (8/20μs) ^(Note2) | P _{PK} | 80W |
| Operating Junction Temperature Range | T _J | -55°C to +125°C |
| Storage Temperature Range | T _{STG} | -55°C to +150°C |

Note :

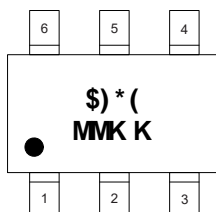
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

Internal Structure



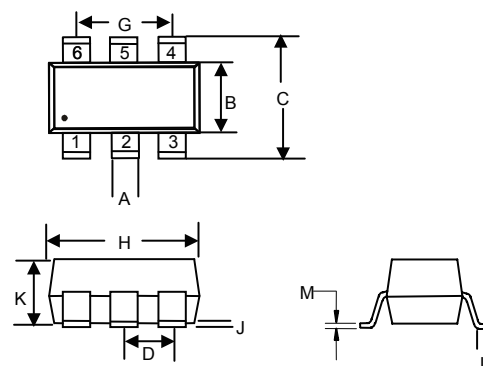
Marking Code



YYWW = Date Code

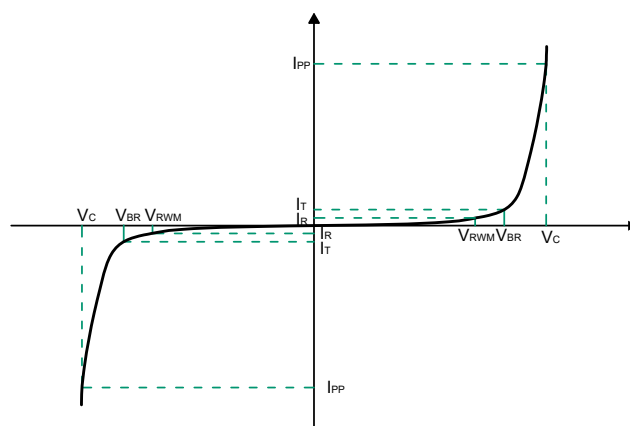
ESD Protection Device

SOT23-6L



| DIMENSIONS | | | | | |
|------------|--------|-------|------|------|------|
| DIM | INCHES | | MM | | NOTE |
| | MIN | MAX | MIN | MAX | |
| A | 0.012 | 0.020 | 0.30 | 0.50 | |
| B | 0.051 | 0.070 | 1.30 | 1.80 | |
| C | 0.087 | 0.126 | 2.20 | 3.20 | |
| D | 0.037 | | 0.95 | | TYP. |
| G | 0.074 | | 1.90 | | TYP. |
| H | 0.106 | 0.122 | 2.70 | 3.10 | |
| J | 0.002 | 0.006 | 0.05 | 0.15 | |
| K | 0.030 | 0.051 | 0.75 | 1.30 | |
| L | 0.012 | 0.024 | 0.30 | 0.60 | |
| M | 0.003 | 0.008 | 0.08 | 0.22 | |

| Symbol | Parameter |
|-----------|-------------------------------------|
| V_{RWM} | Peak Reverse Working Voltage |
| I_R | Reverse Leakage Current @ V_{RWM} |
| V_{BR} | Breakdown Voltage @ I_T |
| I_T | Test Current |
| I_{PP} | Maximum Reverse Peak Pulse Current |
| V_C | Clamping Voltage @ I_{PP} |
| P_{PK} | Peak Pulse Power |
| C_J | Junction Capacitance |



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|-----------------------------------|-----------|----------------------------|------|------|------|---------|
| Reverse Working Voltage | V_{RWM} | | | | 5 | V |
| Reverse Breakdown Voltage | V_{BR} | $I_T=1mA$ | 6 | 8 | | V |
| Reverse Leakage Current | I_R | $V_{RWM}=5V$ | | | 0.2 | μA |
| Clamping Voltage ^{Note1} | V_C | $I_{PP}=1A, t_p=8/20\mu s$ | | | 8 | V |
| Clamping Voltage ^{Note1} | V_C | $I_{PP}=6A, t_p=8/20\mu s$ | | | 14 | V |
| Junction Capacitance | C_J | $V_R=0V, f=1MHz$ | | | 20 | pF |

Note :

1.Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

Curve Characteristics

Fig. 1 - 8 X 20 μ s Pulse Waveform

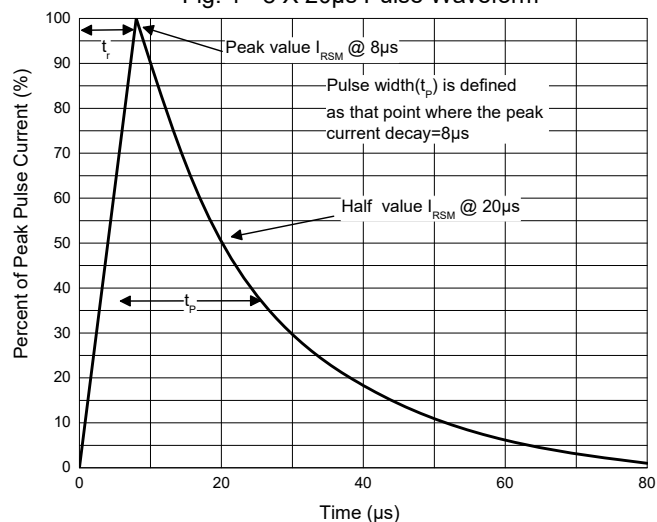


Fig. 2 - Non-Repetitive Peak Pulse Power

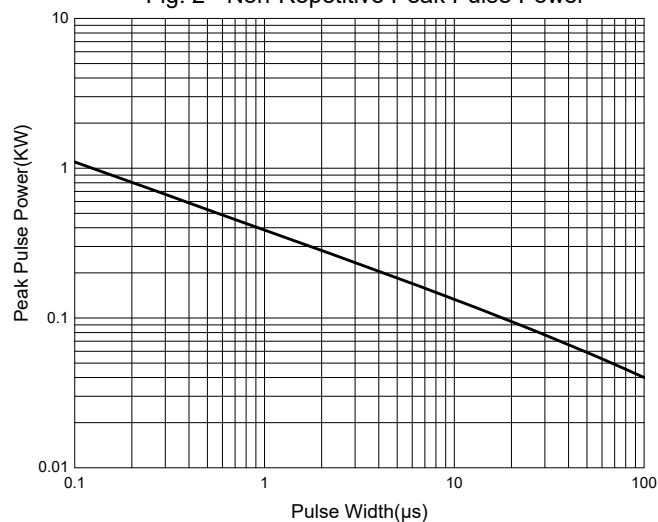


Fig. 3 - Capacitance Characteristics

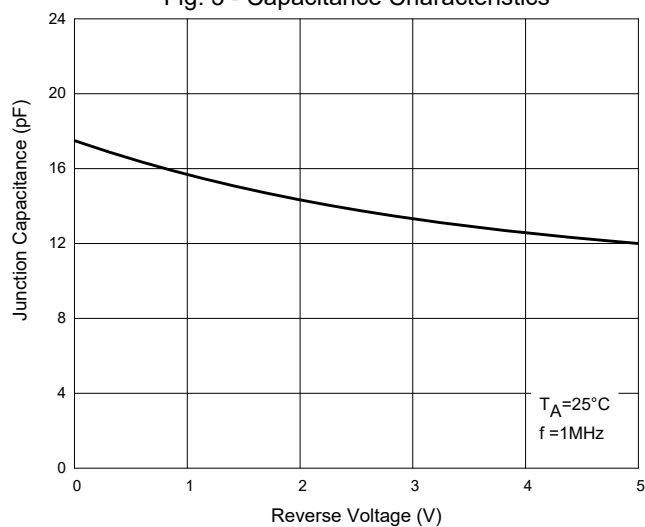


Fig. 4 - Clamping Voltage Characteristics

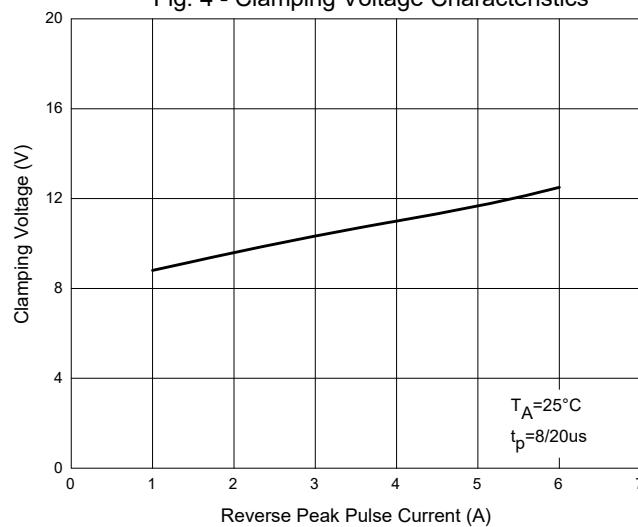
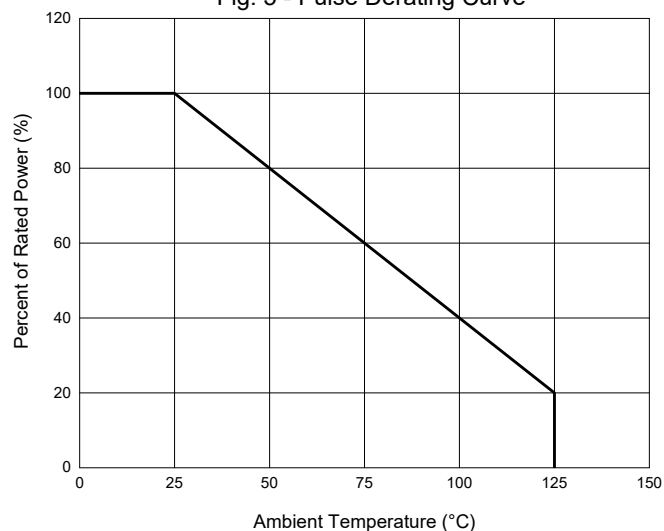


Fig. 5 - Pulse Derating Curve



Ordering Information

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 3Kpcs/Reel |

Note : Adding "-HF" Suffix for Halogen Free, eg. Part Number-TP-HF

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