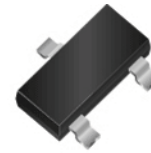


**RoHS Device**  
**Halogen Free**

**Features**

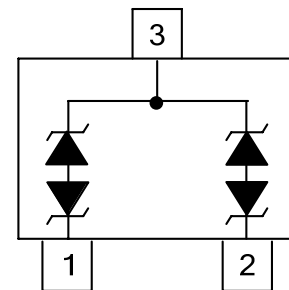
- 300 watts peak pulse power ( $t_p = 8/20\mu s$ )
- Low clamping voltages
- Low Leakage Current
- Response Time is Typically  $< 1\text{ ns}$
- AEC-Q101 Qualified



SOT-23

**Mechanical Characteristics**

- JEDEC SOT-23 package
- Molding compound flammability rating:  
- UL 94V-0
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481



Pin Configuration

**Applications**

- RS-232, RS-422 & RS-485
- Cellular Handsets and Accessories
- Control & Monitoring Systems
- Portable Electronics
- Set-Top Box
- Servers, Notebook, and Desktop PC
- Wireless Bus Protection

**IEC COMPATIBILITY (EN61000-4)**

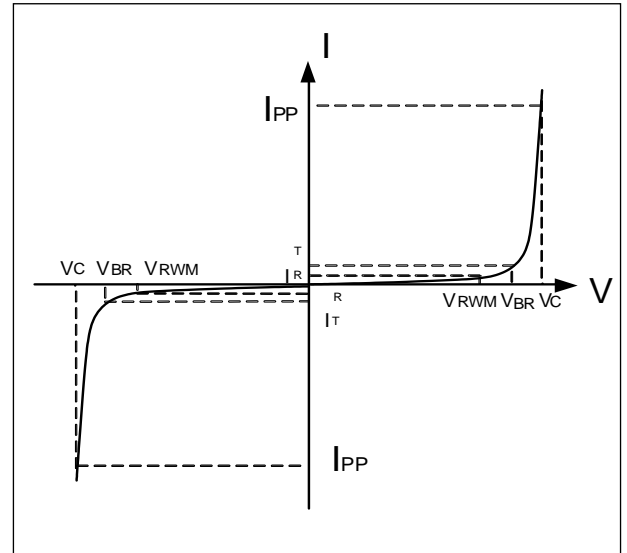
- IEC 61000-4-2 (ESD)  $\pm 30\text{kV}$  (air),  $\pm 30\text{kV}$  (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 14A(8/20 $\mu s$ )

**Absolute Maximum Rating**

Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p=8/20\mu s$ )	$P_{PP}$	300	Watts
Lead Soldering Temperature	$T_L$	260(10sec)	$^{\circ}\text{C}$
Operating Temperature	$T_J$	-55 to + 125	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$

### Electrical Parameters (T=25°C)

Symbol	Parameter
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$V_{RWM}$	Working Peak Reverse Voltage
$I_R$	Maximum Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$

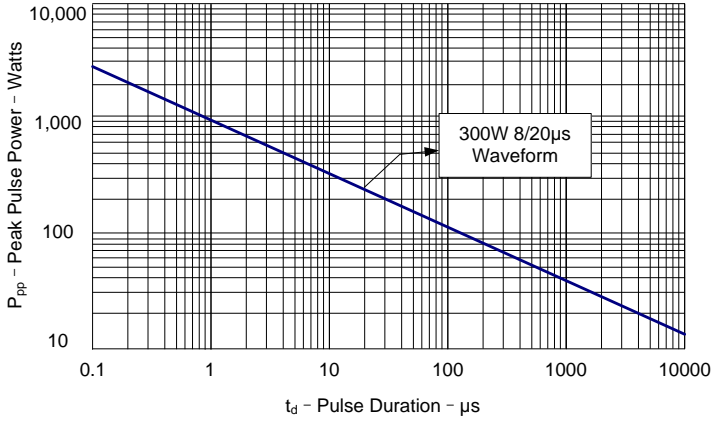


### Electrical Characteristics

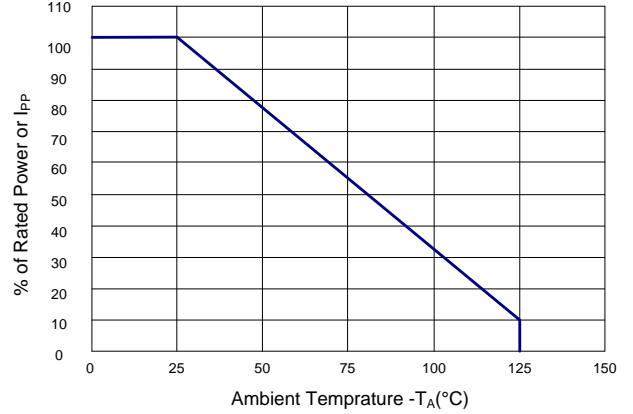
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				5.0	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	6.0			V
Reverse Leakage Current	$I_R$	$V_{RWM}=24V, T=25^\circ C$			1	$\mu A$
Peak Pulse Current	$I_{PP}$	$t_p=8/20\mu s$			18	A
Maximum Clamping Voltage	$V_C$	$I_{PP}=6A, t_p=8/20\mu s$			22	V
Junction Capacitance	$C_j$	Pin 1 to 3 or Pin 2 to 3 $V_R = 0V, f = 1MHz$		20		pF

### Typical Characteristics

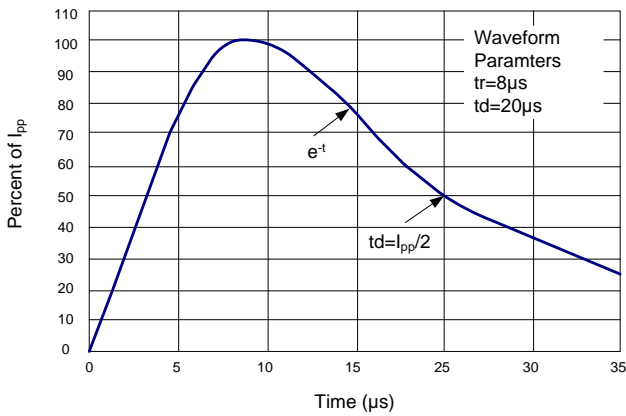
Peak Pulse Power vs. Pulse Time



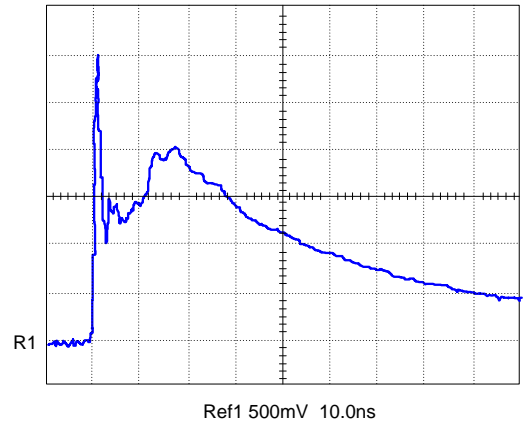
Power Derating Curve



Pulse Waveform



ESD Pulse Waveform (Per IEC 61000-4-2)



**Outline Drawing – SOT-23**

