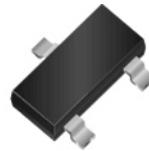


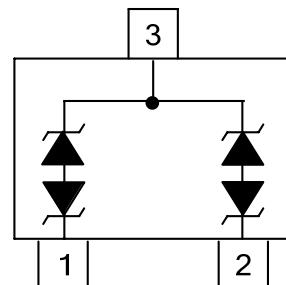
RoHS Device Halogen Free

Features

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



SOT-23



Pin Configuration

Mechanical Characteristics

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

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)

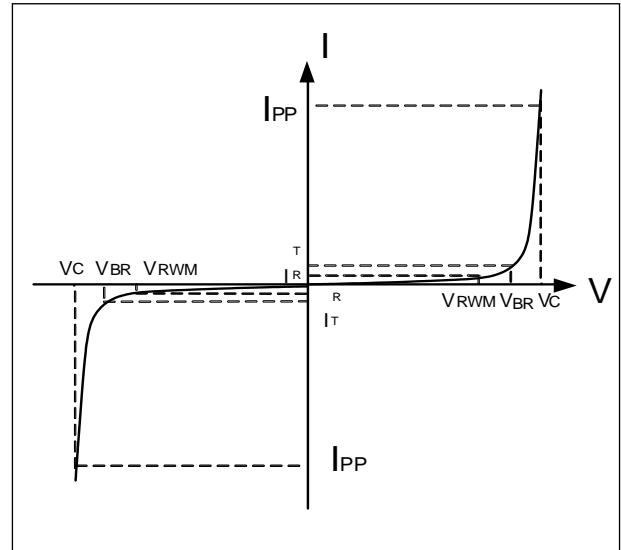
- IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 14A(8/20 μs)

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)	°C
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters ($T=25^{\circ}\text{C}$)

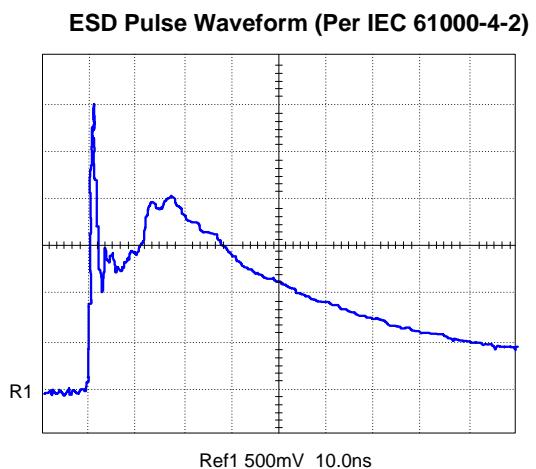
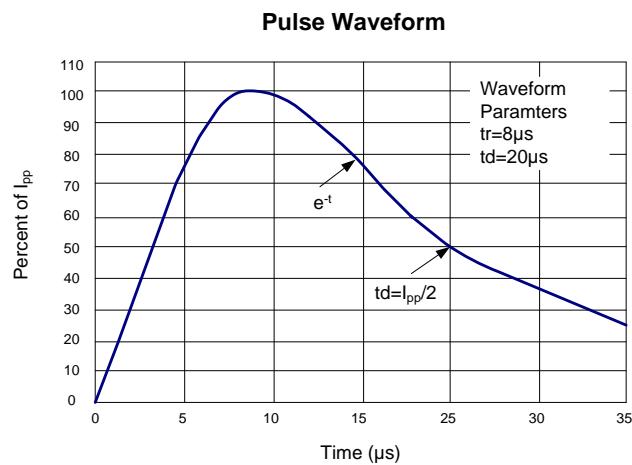
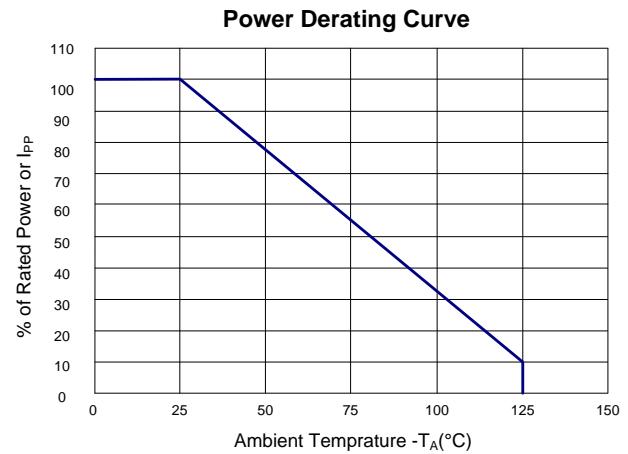
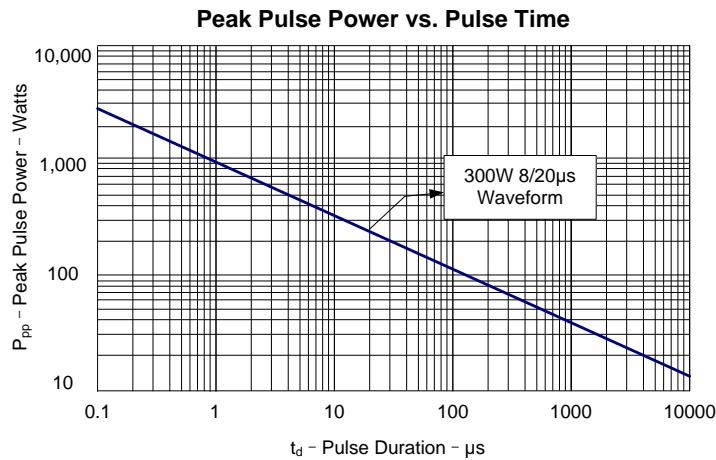
Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics

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

Typical Characteristics



Outline Drawing – SOT-23

PACKAGE OUTLINE		DIMENSIONS			
SYMBOL	MILLIMETER		INCHES		
	MIN	MAX	MIN	MAX	
A	0.89	1.13	0.035	0.044	
A1	0.015	0.11	0.0006	0.0043	
A2	0.60	0.70	0.0236	0.0275	
D	2.72	3.12	0.1070	0.1228	
E	2.60	3.00	0.1024	0.118	
E1	1.40	1.80	0.0551	0.0709	
e	0.95 BSC		0.0374 BSC		
L	0.30	0.60	0.0118	0.0236	
θ	0	8°	0	8	

DIMENSIONS		
DIM	INCHES	MILLIMETERS
M	0.101	2.60
C	0.0058	0.15
Z	0.109	2.80
e	0.037 BSSC	0.95 BSC
e1	0.074 BSC	1.9 BSC
b	0.0389	0.35

Notes

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Pin 3 is the cathode (Unidirectional Only).
4. Dimensions are exclusive of mold flash and metal burrs.