

Features

- ◆ 1200W peak pulse power(8/20μs)
- ◆ Operating voltage: 24V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: ±30kV
Contact discharge: ±30kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 30A (8/20μs)
- ◆ RoHS Compliant

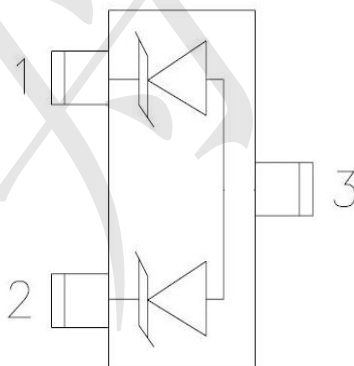
Mechanical Characteristics

- ◆ Package: SOT-23
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: “Green” Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 3 per J STD 020
- ◆ Shipping Qty :3000pcs/71Inch Tape & Reel

Applications

- ◆ Automotive hybrid, electric, and power train systems
HEV/EV on-board charger
- ◆ EV battery charging communication
 - CHAdeMO
 - CCS
 - GB/T
- ◆ Automotive in-vehicle networks
 - Controller area network (CAN)
 - Local interconnect network (LIN)
 - 24V power lines or digital input or output lines

Dimensions and Pin Configuration



Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppk	1200	W
Peak Pulse Current (8/20μs)	IPP	30	A
ESD per IEC 61000-4-2 (Air)	VESD	± 30	kV
ESD per IEC 61000-4-2 (Contact)		± 30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM	- 24		24	V	
Breakdown Voltage	VBR	25.5			V	IT = 1mA
Reverse Leakage Current	IR			0.2	μA	VRWM = 24V
Forward Voltage	VF		0.8	1.2	V	IF = 10mA
Clamping Voltage	VC			37	V	IPP = 1A (8 x 20μs pulse)
Clamping Voltage	VC		40	55	V	IPP = 25A (8 x 20μs pulse)
Junction Capacitance	CJ			20	pF	VR=0, f=1MHz

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

Fig1. 8/20 μs Pulse Waveform

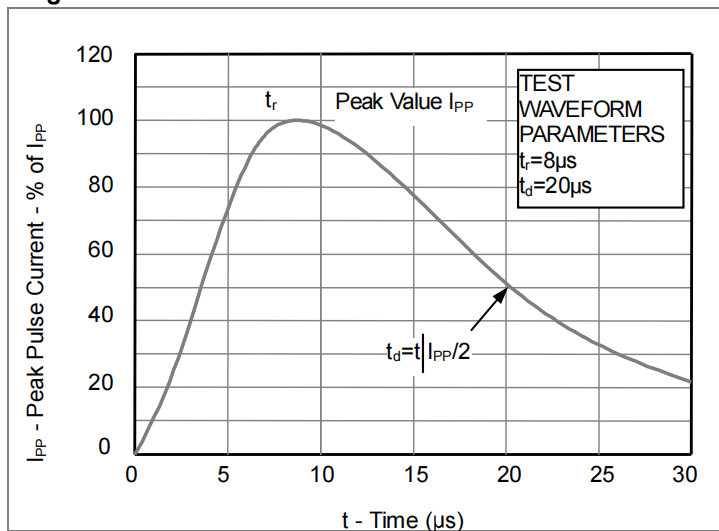


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

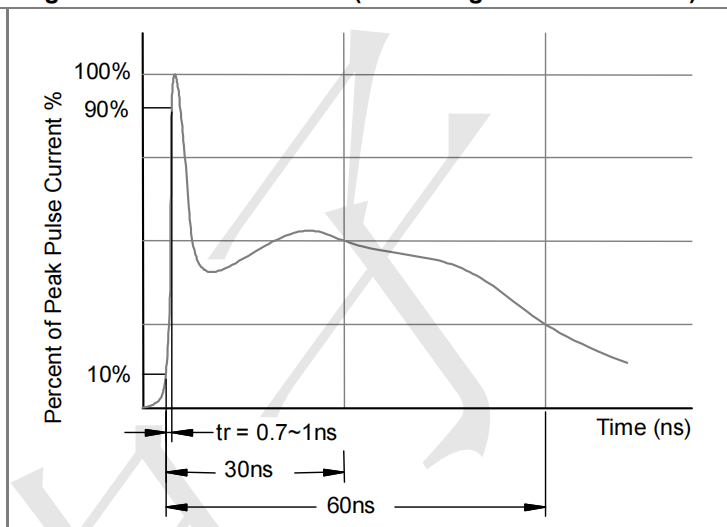
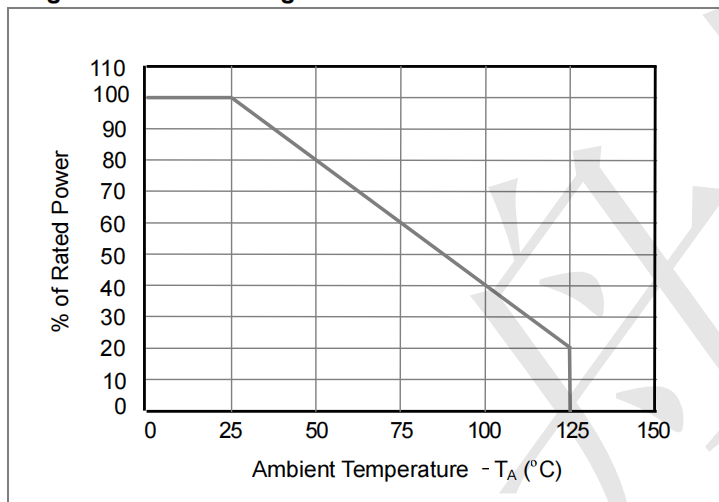
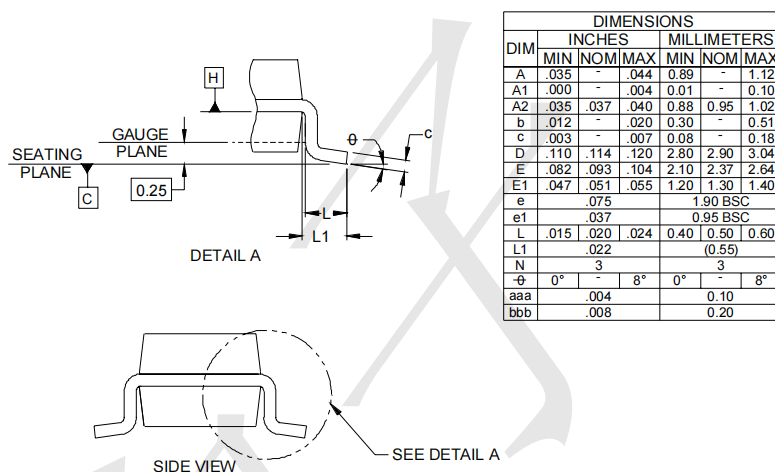
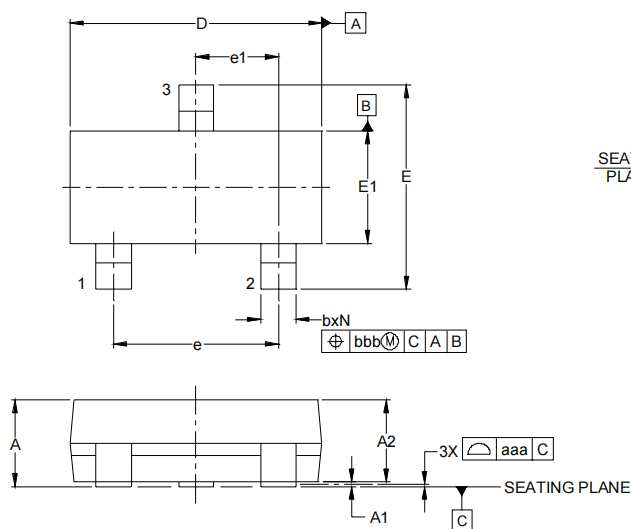


Fig3. Power Derating Curve



Outline Drawing - SOT23



Land Pattern - SOT23

