

### Features

- ◆ 250W peak pulse power(8/20 $\mu$ s)
- ◆ Protects two bi-directional lines
- ◆ Ultra low leakage: nA level
- ◆ Operating voltage: 24V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30$ kV
    - Contact discharge:  $\pm 30$ kV
  - IEC61000-4-4 (EFT) 40A (5/50ns)
  - IEC61000-4-5 (Lightning)5A (8/20  $\mu$ s)
- ◆ RoHS Compliant

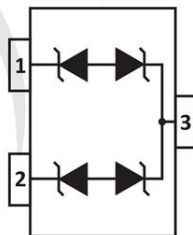
### Mechanical Characteristics

- ◆ SOT-23 package
- ◆ Molding compound flammability rating:
- ◆ UL 94V-0
- ◆ Packaging: Tape and Reel per EIA 481
- ◆ Shipping Qty :3000pcs/7Inch Tape & Reel

### Applications

- ◆ CAN Bus Protection
- ◆ Automotive Appllcatrons

### Dimensions and Pin Configuration



**Marking: 24C Or M24CB**

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

Parameter	Symbol	Value	Unit
Peak Pulse Power(8/20μs)	Ppk	250	W
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	V	
Breakdown Voltage	VBR	26.5		32	V	IT = 1mA
Reverse Leakage Current	IR			0.08	uA	VRWM = 24V
Clamping Voltage	VC		33		V	I <sub>PP</sub> = 1A (8 x 20μs pulse)
Clamping Voltage	VC			50	V	I <sub>PP</sub> = 5A (8 x 20μs pulse)
Peak Pulse Current	I <sub>PP</sub>			5.5	A	t <sub>p</sub> = 8/20μs
Junction Capacitance	CJ		17		pF	VR = 0V, f = 1MHz, Pin 1 to Pin 2

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

Fig1. 8/20 $\mu\text{s}$  Pulse Waveform

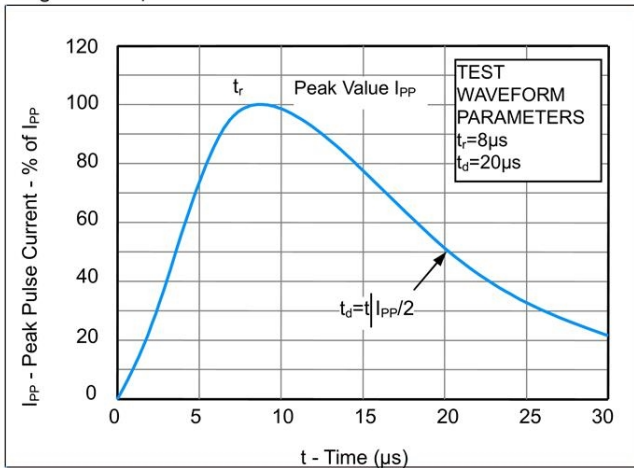


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

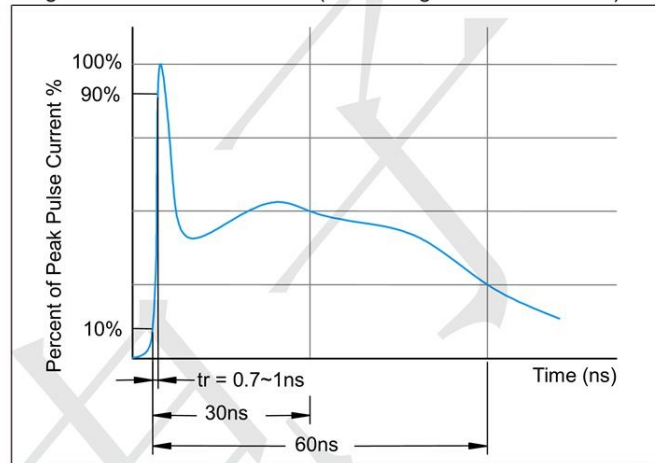
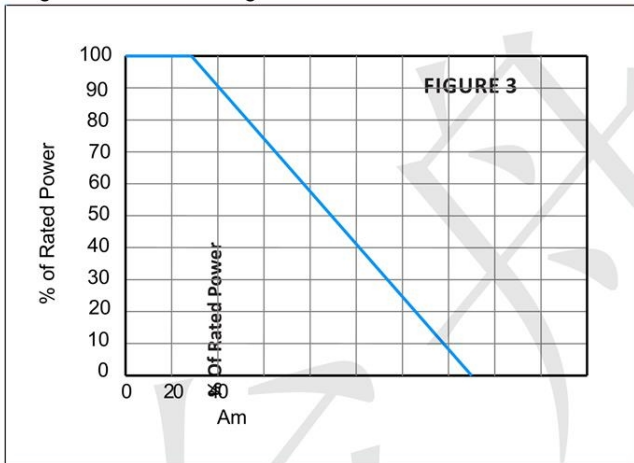
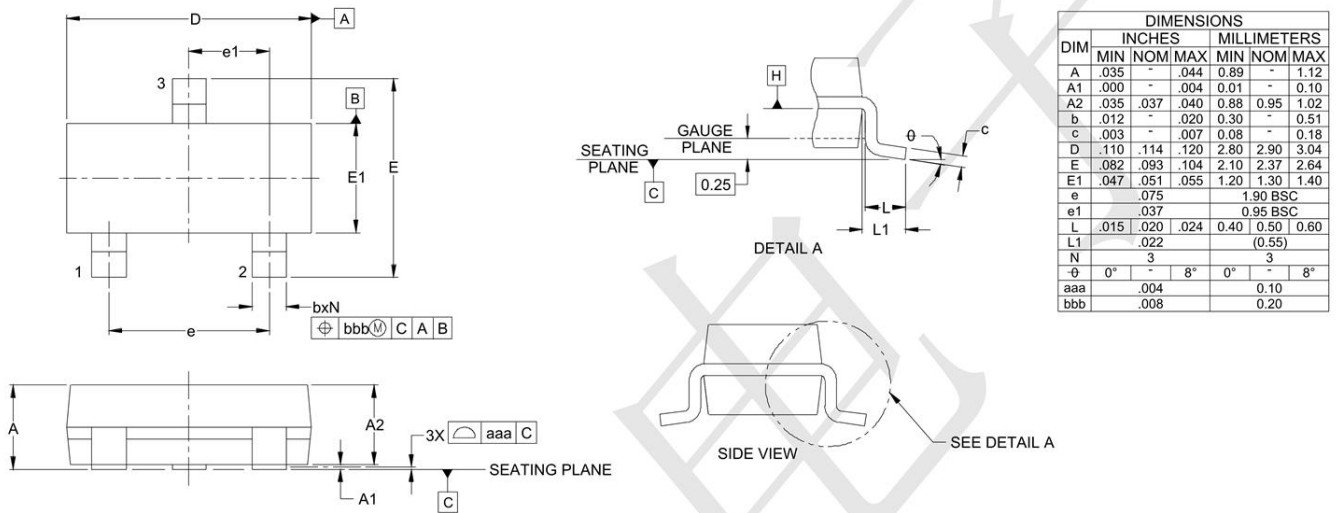


Fig3. Power Derating Curve



**Outline Drawing - SOT23**



**Land Pattern - SOT23**

