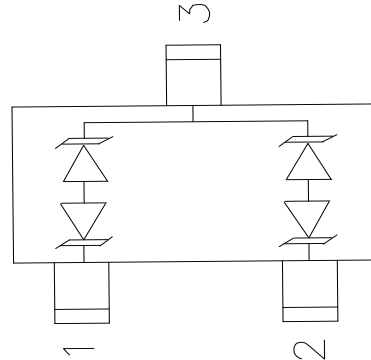


Features

- 150 W peak pulse power ($t_p = 8/20\mu s$)
- Transient protection for high speed data lines to IEC 61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
IEC 61000-4-4 (EFT) 40A (5/50ns)
- Working voltages : 5V
- Protects one bidirectional line or two unidirectional lines
- Low operating and clamping voltages
- Solid-state silicon avalanche technology



Applications

- USB Power & Data Line Protection
- Monitors and Flat Panel Displays
- I²C Bus Protection
- Portable Instrumentation
- Set Top Box

Mechanical Characteristics

- Package: SOT23
- Lead Finish: Matte Tin
- UL Flammability Classification Rating 94V-0
- Pb-Free, Halogen Free, RoHS/WEEE Compliant

Absolute Maximum Ratings ($T_A=25^\circ C$ unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power(8/20 μs)	Ppk	150	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	± 15 ± 8	kV
Operating Temperature Range	TJ	-55 to +125	$^\circ C$
Storage Temperature Range	Tstg	-55 to +150	$^\circ C$

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise specified)

Part Number	V_{RWM}	IDRM	VBR	IR	VC	IPP	VC	IPP	CO
	V	μA	V	mA	V	A	V	A	pF
		MAX	MIN		MAX		MAX		MAX
SM05	5	1	6	1	9.8	1	15	10	100

Typical Characteristics

Fig1. 8/20μs Pulse Waveform

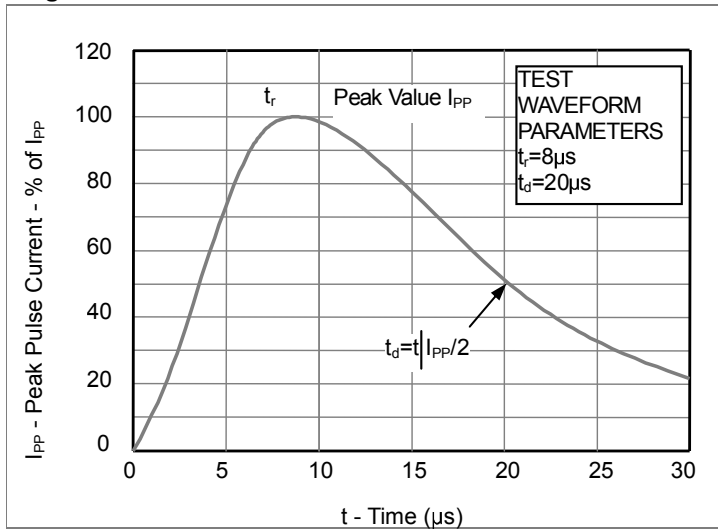


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

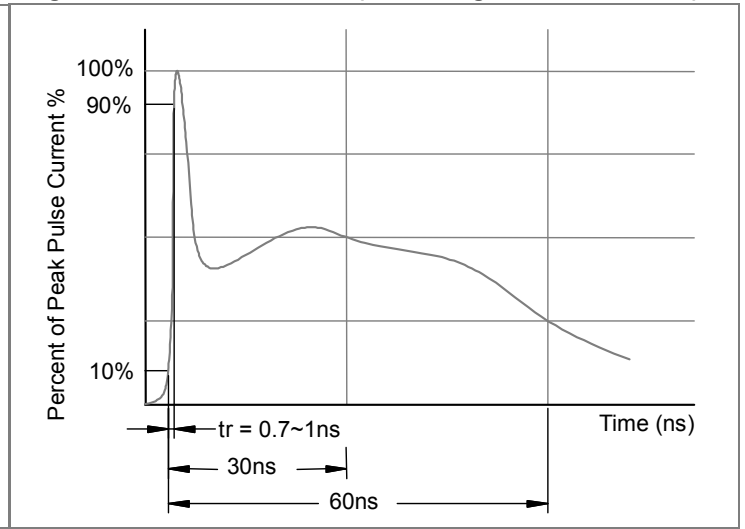
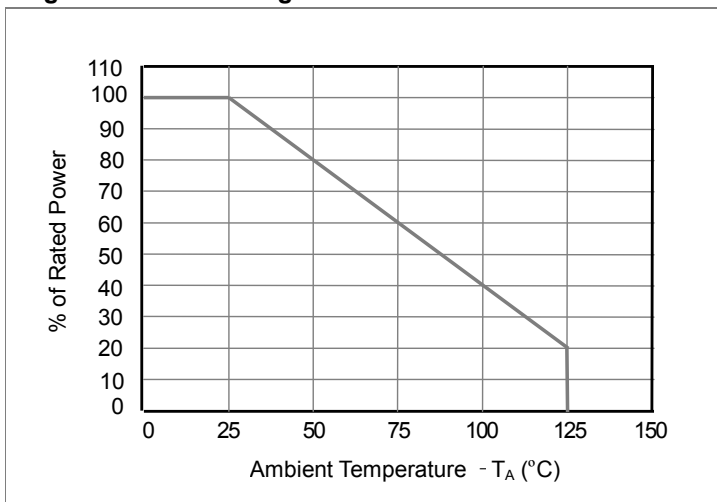
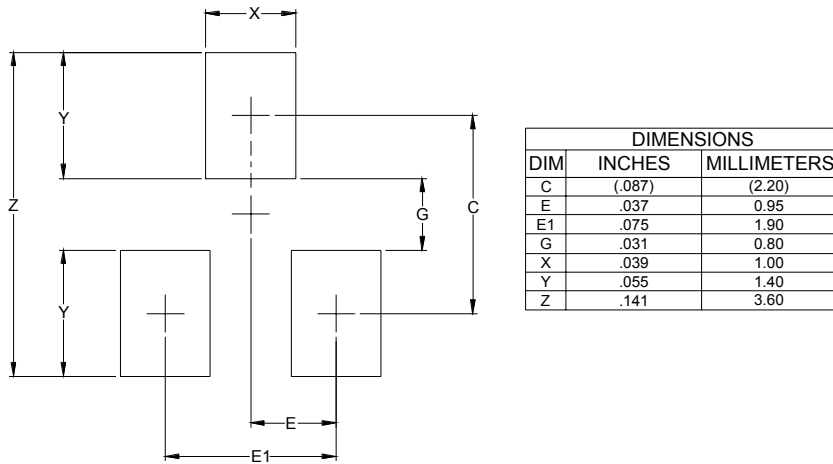


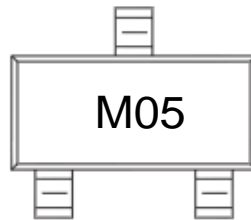
Fig3. Power Derating Curve



Outline Drawing - SOT23



Marking



Ordering information

Order code	Package	Base qty	Delivery mode
SM05.TCT	SOT-23	3000	Tape and reel