

Features

- ◆ 350W peak pulse power(8/20μs)
- ◆ Protects one bi-directional or two uni-directional lines
- ◆ Ultra low leakage: nA level
- ◆ Operating voltage: 36V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±30kV
 - Contact discharge: ±30kV
 - IEC61000-4-5 (Lightning) 5A (8/20μs)
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ RoHS Compliant

Mechanical Characteristics

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

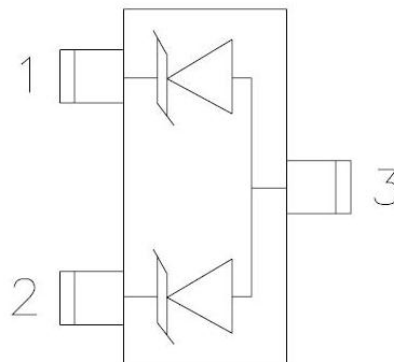
Applications

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

Ordering Information

Part Number	Qty per Reel	Reel Size
TPSM36T1G	3000	7"

Dimensions and Pin Configuration



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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	P _{pk}	350	W
Peak Pulse Current (8/20μs)	I _{pp}	5	A
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	kV
ESD per IEC 61000-4-2 (Contact)		±30	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			36	V	
Breakdown Voltage	V _{BR}	38	42	48	V	I _T = 1mA
Reverse Leakage Current	I _R			0.1	μA	V _{RWM} = 36V
Clamping Voltage	V _C			50	V	I _{pp} =1A(8x 20us pulse)
Clamping Voltage	V _C			70	V	I _{pp} =5A(8x 20us pulse)
Junction Capacitance	C _J		30		pF	V _R = 0V, f = 1MHz

PROTECTION PRODUCTS
Typical characteristics

Fig1. 8/20 μ s Pulse Waveform

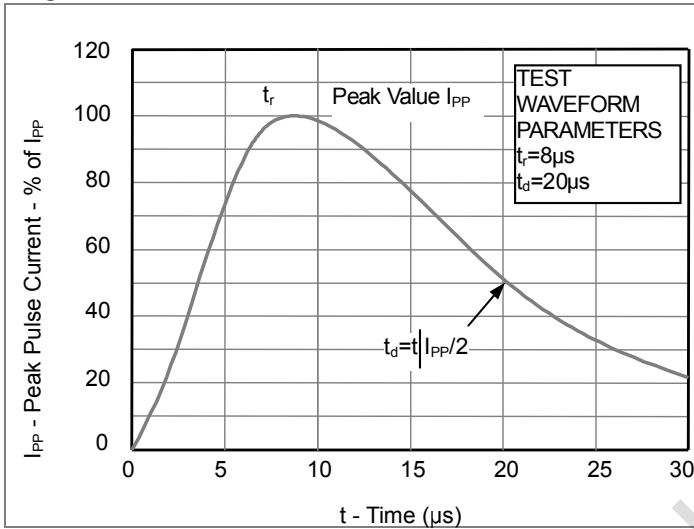


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

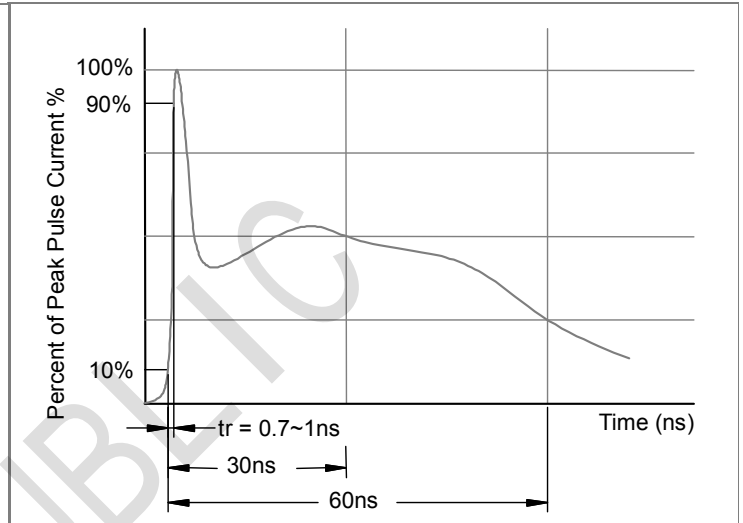
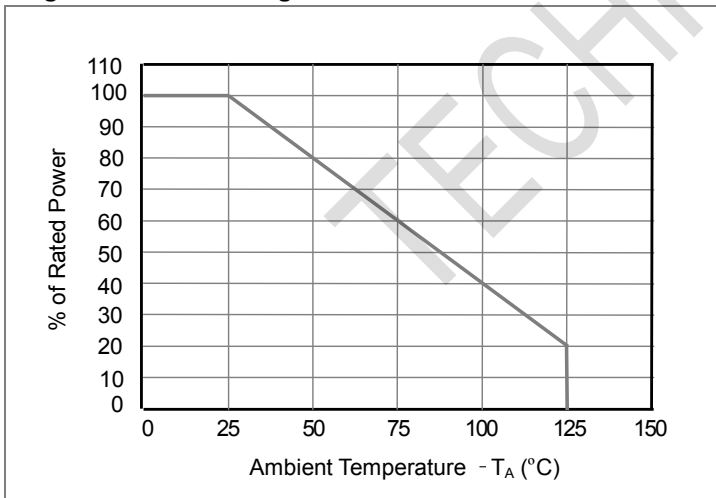


Fig3. Power Derating Curve



Outline Drawing - SOT23

