

DESCRIPTION

The Standard TVS are designed to low voltage, integrated circuits from transients caused by electrostatic discharge (ESD), electrical fast transients (EFT) and other induced voltages.

APPLICATIONS

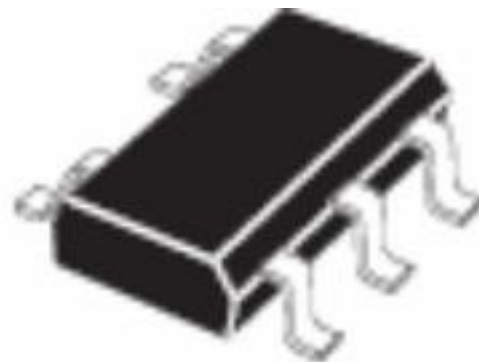
- ✧ Computer Notebooks.
- ✧ Communication Systems & Cellular Phones.
- ✧ Printers .
- ✧ Personal Digital Assistant(PDA).
- ✧ Video Equipment.

FEATURES

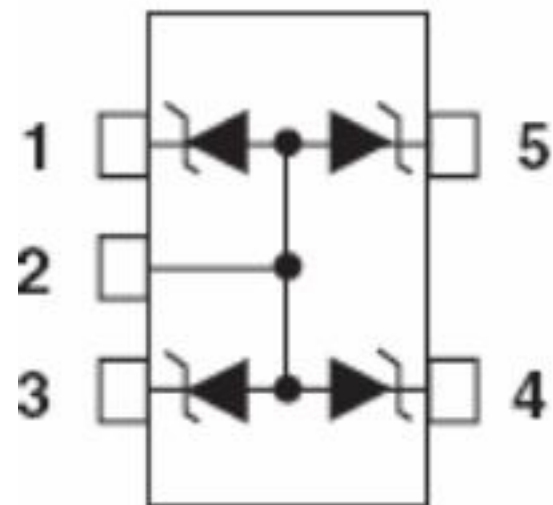
- ✧ 100 W Peak Pulse Power per Line ($t_p=8/20\mu s$).
- ✧ Monolithic Structure.
- ✧ Available in 4 Voltage Types:5V to 24V.
- ✧ Low Clamping Voltage.
- ✧ ESD Protection > 40 kilovolts.
- ✧ Low Leakage Current .
- ✧ Protects up to Four (4) Bidirectional Lines and Five(5) Unidirectional Lines.
- ✧ RoHS Compliant on Lead-Free Versions .

COMPLIES WITH THE FOLLOWING STANDARDS

- ✧ IEC61000-4-2.
- ✧ Level 4 15 kV (air discharge)
8 kV(contact discharge).
- ✧ MIL STD 883E - Method 3015-7 Class 3
25 kV HBM (Human Body Model).



SOT-353



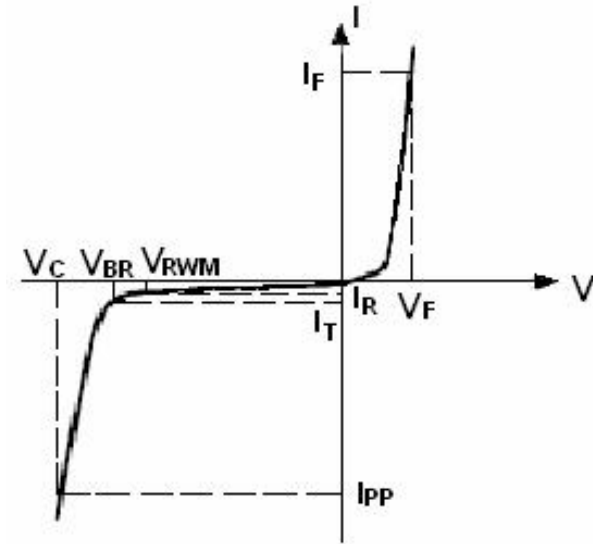
DEVICE CHARACTERISTICS

Absolute Ratings (T_{amb}=25°C)

Symbol	Parameter	Value	Unit
P _{pp}	Peak Pulse Power (t _p = 8/20μs)	100	W
T _J	Operating Temperature	-55 to +150	°C
T _{stg}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL PARAMETER

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}
I _T	Test Current
V _{BR}	Breakdown Voltage @ I _T
I _F	FORWARD CURRENT
V _F	FORWARD VOLTAGE @ I _F



ELECTRICAL CHARACTERISTICS

Part Numbers	V _{BR}			I _T	V _{RWM}	I _R	C
	Min.	Typ.	Max.				Typ. 0v bias
	V	V	V		V	μA	pF
SMF05	6.1	6.7	7.2	1	5	1	35
SMF12	13.3	14.5	15.0	1	12	1	30

1. Square pulse I_{pp}=15A, t_p=2.5μs 2. V_{BR}=aT*(T_{amb}-25°C)*V_{BR}(25°C)

TYPICAL CHARACTERISTICS

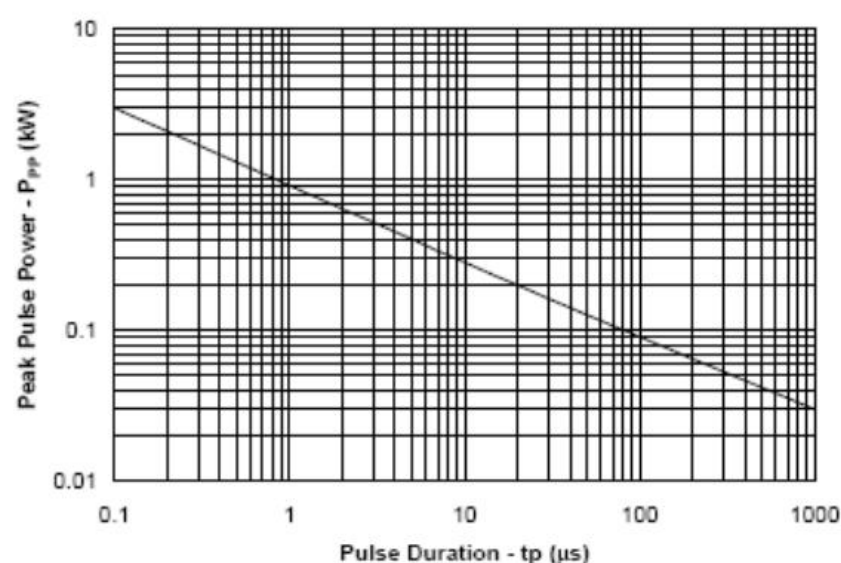


Fig1. Non-Repetitive Peak Pulse Power vs. Pulse Time

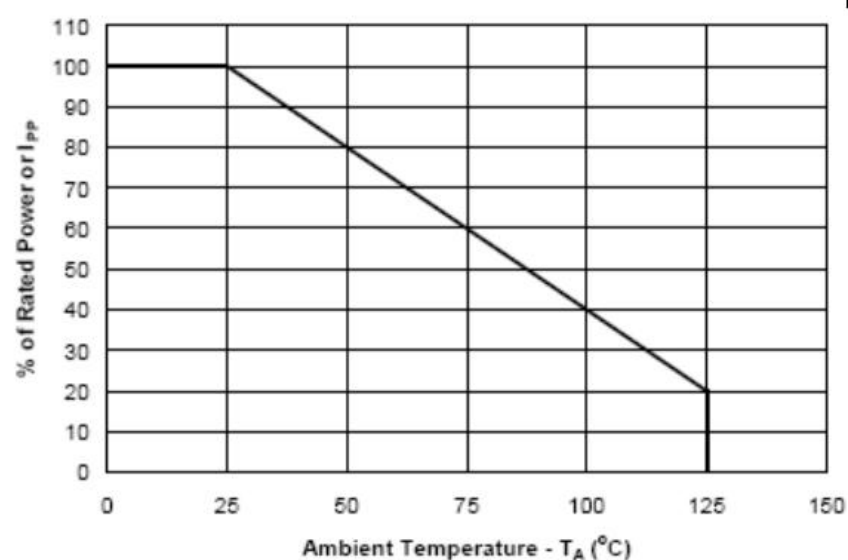


Fig2. Power Derating Curve

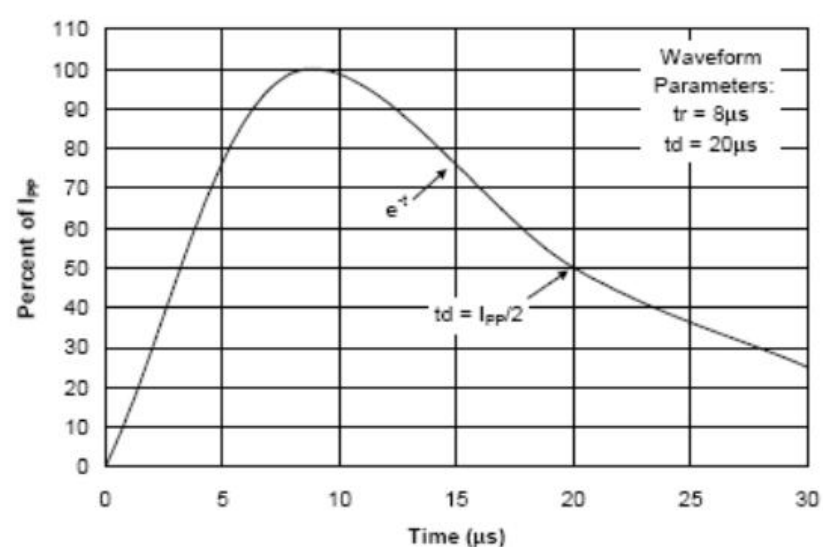


Fig3. Pulse Waveform

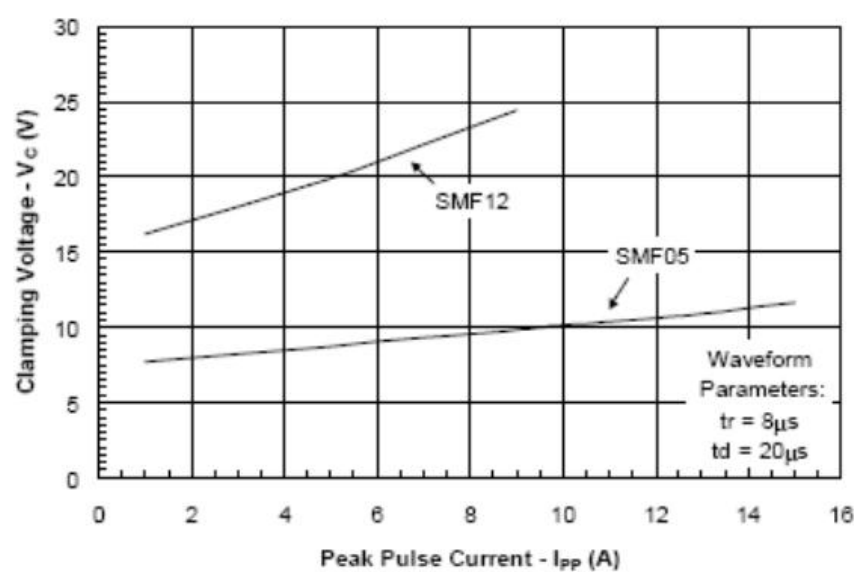
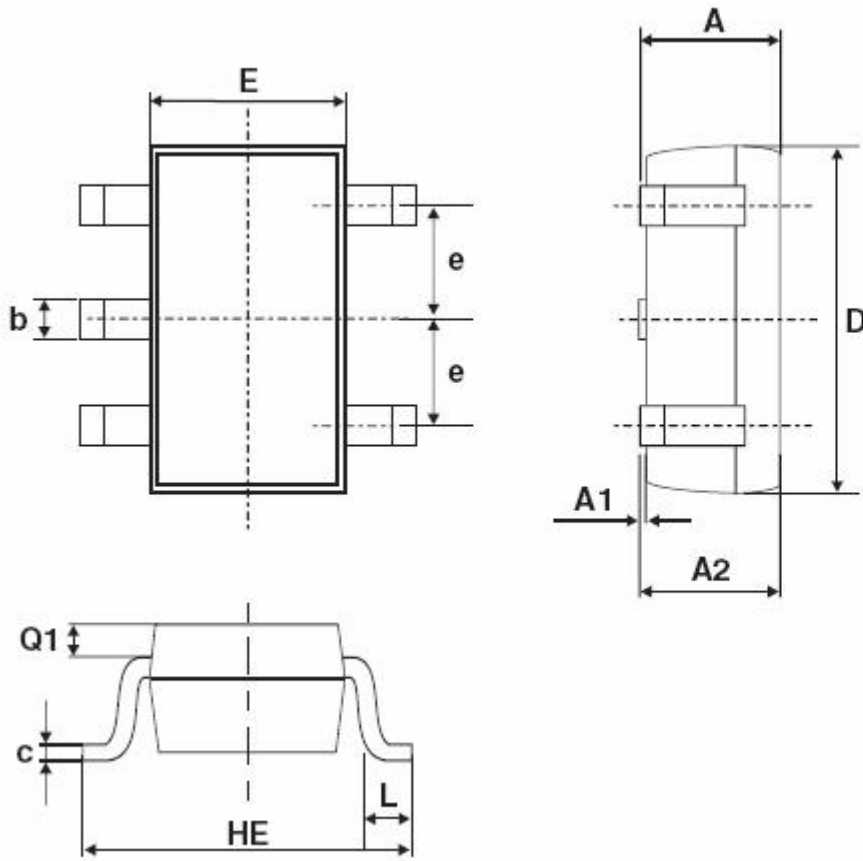


Fig4. Clamping Voltage vs. Peak Pulse Current

SOT-353 MECHANICAL DATA

REF.	DIMENSIONS			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.8	1.1	0.031	0.043
A1	0	0.1	0	0.004
A2	0.8	1	0.031	0.039
b	0.15	0.3	0.006	0.012
c	0.1	0.18	0.004	0.007
D	1.8	2.2	0.071	0.086
E	1.15	1.35	0.045	0.053
e	0.65 Typ.		0.025 Typ.	
H	1.8	2.4	0.071	0.094
Q1	0.1	0.4	0.004	0.016



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