SEMF05AC SERIES
5-Line Transient Voltage Suppressor Array

Revision:B

General 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=8/20μs)
- Monolithic Structure
- 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

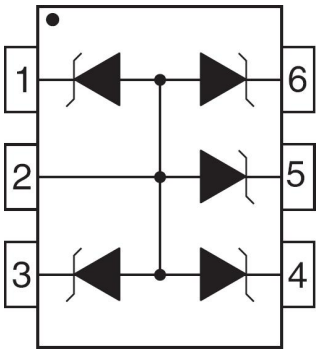
Level 4 15 kV (air discharge)

8 kV(contact discharge)

MIL STD 883E - Method 3015-7 Class 3

25 kV HBM (Human Body Model)

Functional Diagram



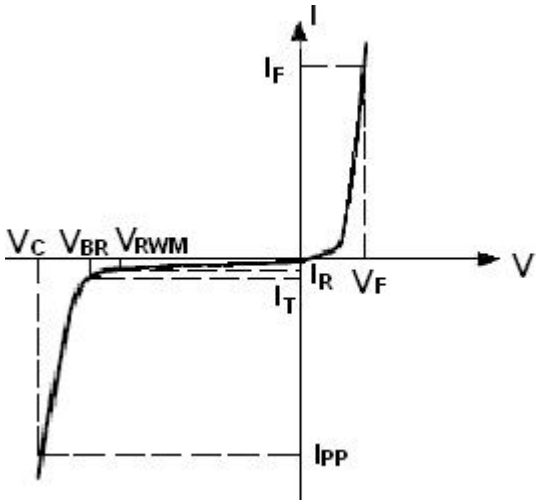
SOT-363

Absolute Ratings @ 25℃ Unless Otherwise Specified

Symbol	Parameter	Value	Units
P_{PP}	Peak Pulse Power (t_p=8/20μs)See Figure 1	100	Watts
T_J	Operating Temperature	-55℃ to 150 ℃	℃
T_{STG}	Storage Temperature	-55℃ to 150℃	℃

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	mA	V	μA	pF
SEMF05AC	6.1	6.7	7.2	1	5.0	5	35

Typical Characteristics

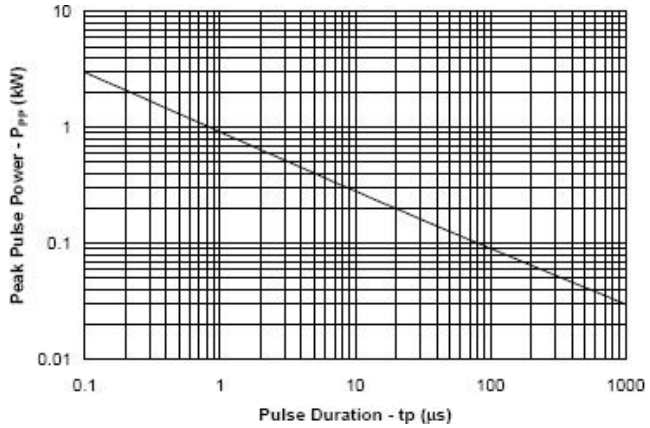


Fig1. Non-Repetitive Peak Pulse Power vs. Pulse Time

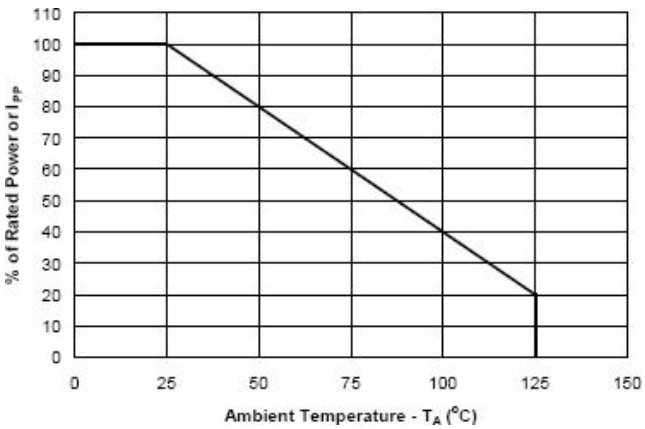


Fig2. Power Derating Curve

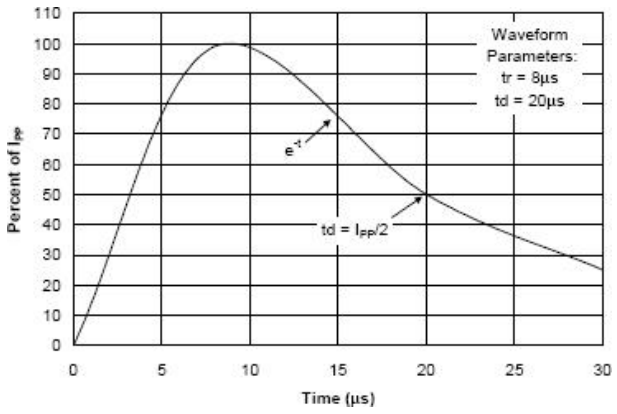


Fig3. Pulse Waveform

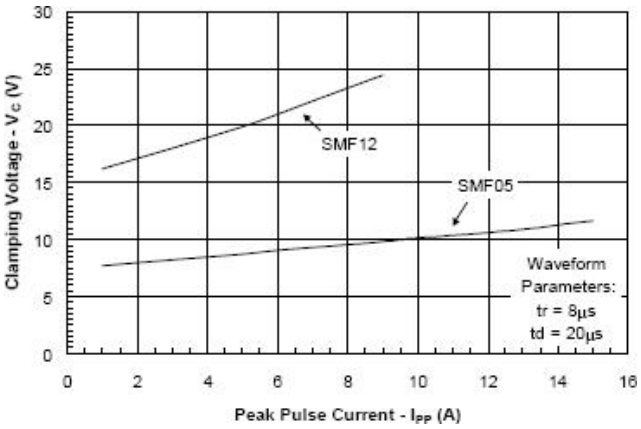
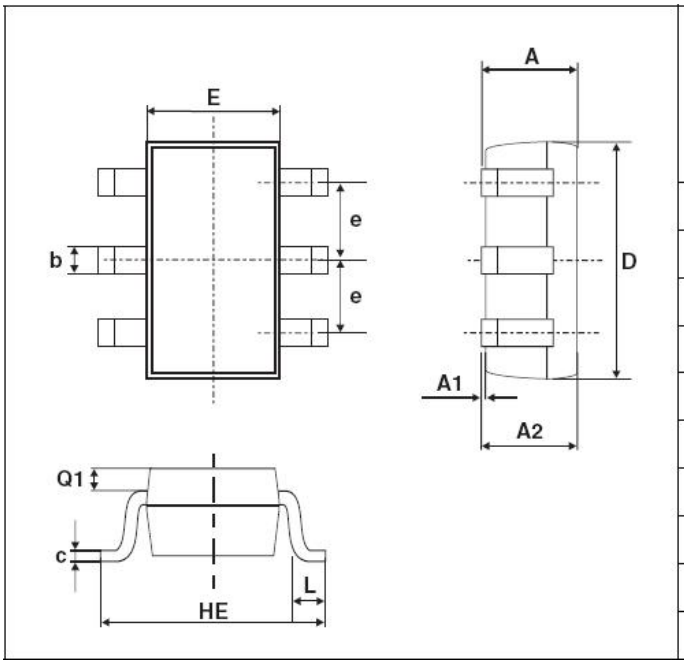


Fig4. Clamping Voltage vs. Peak Pulse Current

SOT-363 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
Q	0.1	0.4	0.004	0.016

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