

SESMF05AC
5-Line Transient Voltage Suppressor Array

Revision:B

General Description

The SESMF05AC is a transient voltage suppressor designed to protect components which are connected to data and transmission lines against ESD. It clamps the voltage just above the logic level supply for positive transients and to a diode drop below ground for negative transients.

Applications

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

Features

- 25 Watts Peak Pulse Power per Line ($t_p=8/20\mu s$)
- Monolithic Structure
- Clamping Voltage :5V
- Low Clamping Voltage
- Low Leakage Current
- Protects Four (4) Bidirectional Lines and Five (5) Unidirectional Lines
- RoHS compliant on Lead-Free Versions

Complies with the following standards

IEC61000-4-2

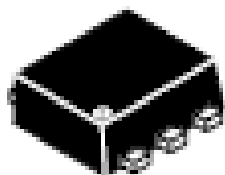
Level 4 15 kV (air discharge)

8 kV(contact discharge)

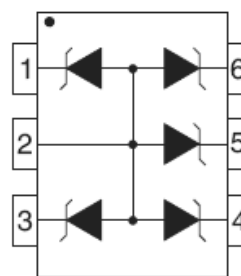
MIL STD 883E - Method 3015-7 Class 3

25 kV HBM (Human Body Model)

Functional Diagram



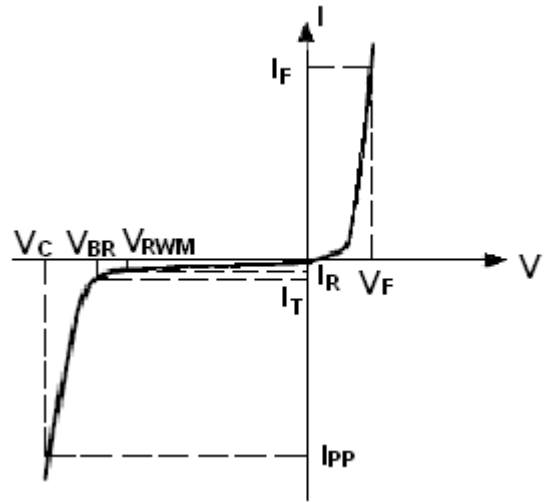
SOT-563



Absolute Ratings @ 25°C Unless Otherwise Specified			
Symbol	Parameter	Value	Units
P _{PP}	Peak Pulse Power ($t_p=8/20\mu s$) See Figure 1	25	Watts
T _J	Operating Temperature	-55°C to 150 °C	°C
T _{STG}	Storage Temperature	-55°C to 150°C	°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				pF
SESMF05AC	6.1	6.7	7.2	1	5.0	1	20
SESMF12AC	13.3	14.5	15.0	1	12	1	16

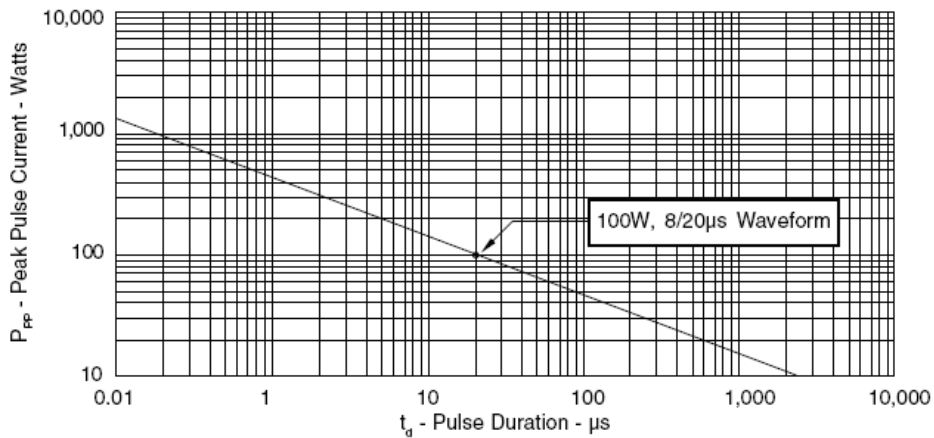


Figure 1 Peak Pulse Power VS Pulse Time

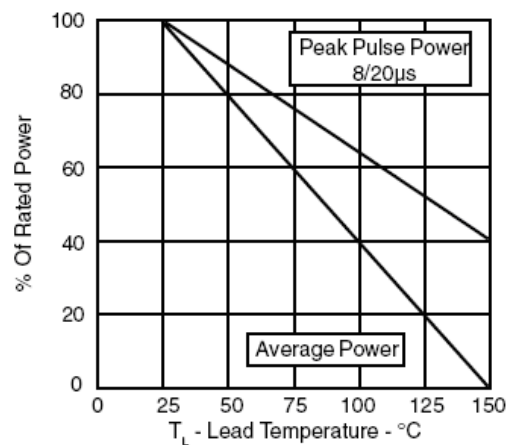
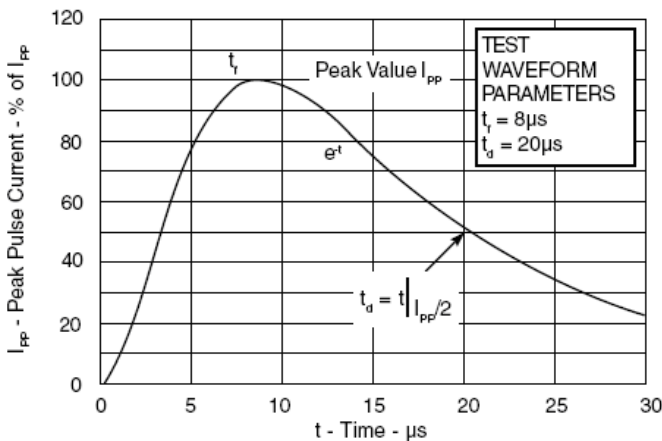


Figure 2 Pulse Wave Form

Figure 3 Power Derating Curve

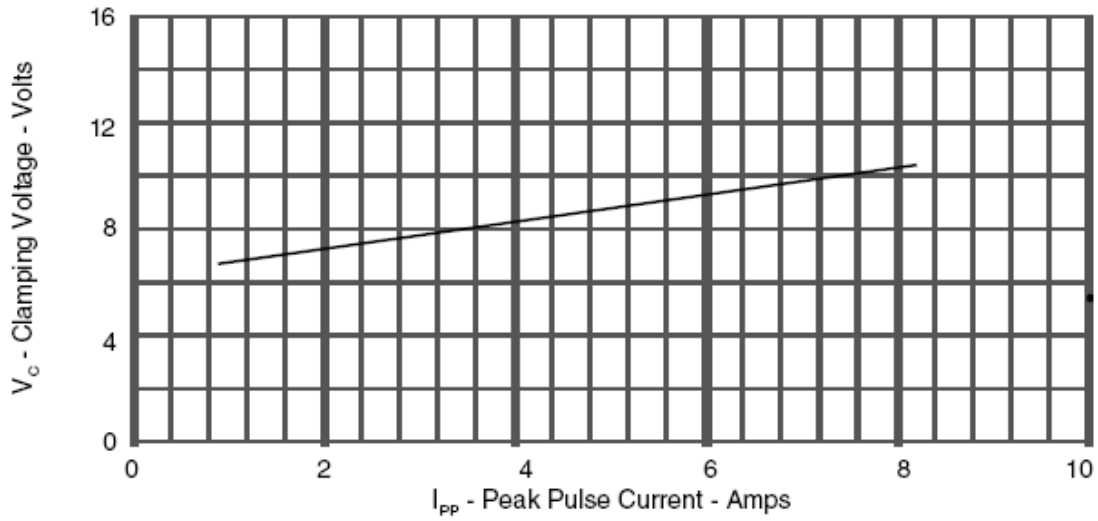
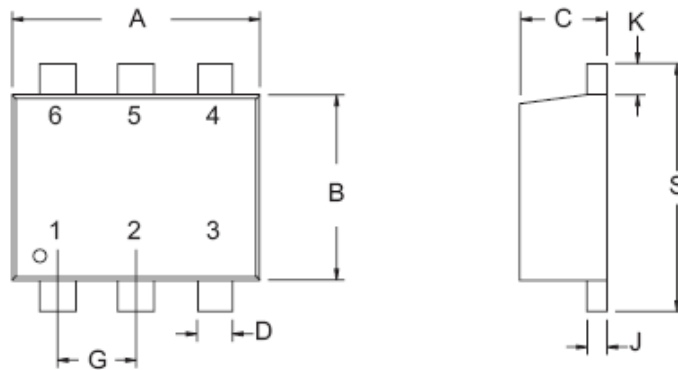


Figure 4 Typical Clamping Voltage VS Peak Pulse Current SESMF05AC

SOT-563 Mechanical Data

PACKAGE OUTLINE

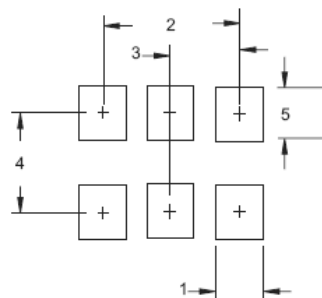


PACKAGE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.50	1.70	0.059	0.067
B	1.10	1.30	0.043	0.051
C	0.50	0.60	0.020	0.024
D	0.17	0.27	0.007	0.011
G	0.50 BSC	-	0.020 BSC	-
J	0.08	0.16	0.003	0.007
K	0.10	0.30	0.004	0.012
S	1.50	1.70	0.059	0.067

Mounting Pad

Typical		
DIM	MILLIMETERS	INCHES
1	0.30	0.012
2	1.02	0.040
3	0.51	0.020
4	1.40	0.055
5	0.51	0.020



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