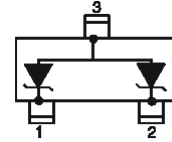


Description

The SESxxxT23-3 series are Bi-directional Transient Voltage Suppressor Arrays that designed to protect components which are connected to data and transmission lines against electrostatic discharge(ESD), electrical fast transients(EFT), and lightning.

All pins are rated to withstand 20kv ESD pulses using the IEC 61000-4-2 contact discharge method, which can meet the requirement of Level 4, "Human Body Model" for air and contact discharge.



Feature

- 500 Watts peak pulse power ($t_p=8/20\mu s$)
- Low clamping voltage
- Protects one bidirectional or two unidirectional lines
- Working voltages: 3V, 5V, 8V, 12V, 15V
- ESD Protection > 40 kilovolts
- Complies with
 - 61000-4-2(ESD):Air-15kV, Contact-8kV
 - 61000-4-4(EFT):40A-5/50ns
 - 61000-4-5(Surge):24A, 8/20[s

Applications

- Cellular Handsets and Accessories
- Portable Electronics
- Control & Monitoring Systems
- Servers, Notebooks, and Desktop PCs
- Set-Top Box
- Communication Systems

Electrical characteristics

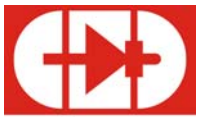
Symbol	Parameter
V_{RM}	Stand-off voltage
V_{BR}	Breakdown voltage
V_{CL}	Clamping voltage
I_R	Leakage current
I_{PP}	Peak pulse current
α_T	Voltage temperature coefficient
C_j	Capacitance
R_d	Dynamic resistance
V_F	Forward voltage drop

Absolute maximum rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu S$)	P_{pp}	500	Watts
Operating Temperature	T_J	-55 to +150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical characteristics @25°C (unless otherwise specified)

Device	V_{RWM}	I_R @ V_{RWM}	Breakdown Voltage@ 1mA		C_j pF	V_C	
			V_{BR} Volts (Note 2.)			$V_C@$	$V_C@$
						$I_{PP}=1A$	$I_{PP}=5A$
			Volts	uA		Min	Max
SES4VT23-3	4	20.0	5.0	6.2	300	8.5	10.5
SES5VT23-3	5	20.0	6.0	7.4	220	9.8	12.5
SES8VT23-3	8	5.0	8.5	9.9	190	13.4	15.0
SES12VT23-3	12	1.0	13.3	14.7	150	19.0	28.0
SES15VT23-3	15	1.0	16.7	18.1	100	24.0	39.0



Typical Characteristics

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

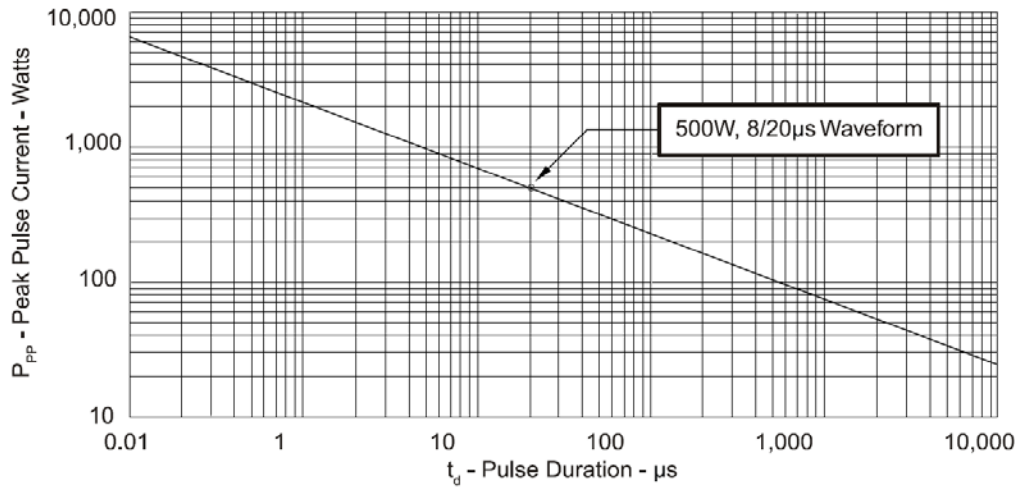


FIGURE 2
PULSE WAVE FORM

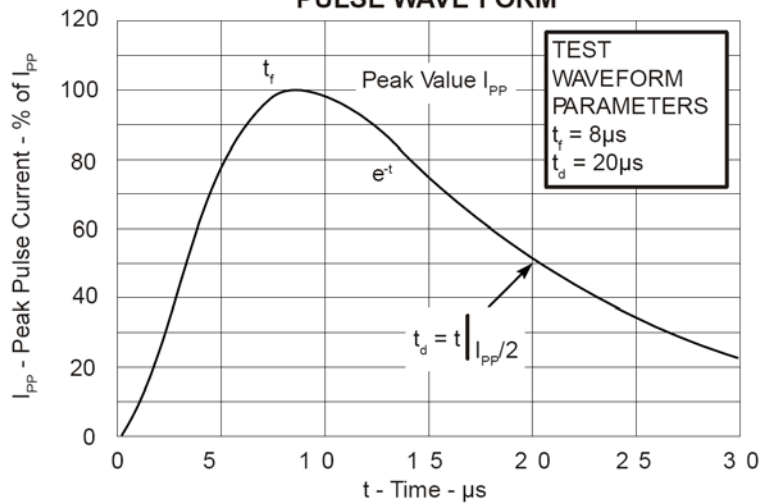
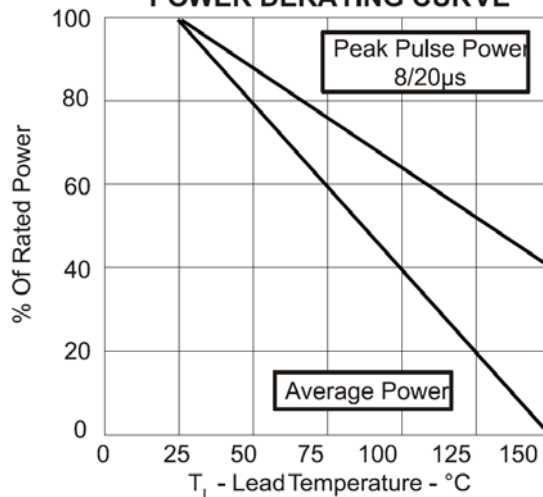
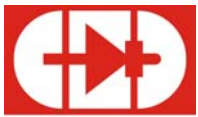


FIGURE 3
POWER DERATING CURVE

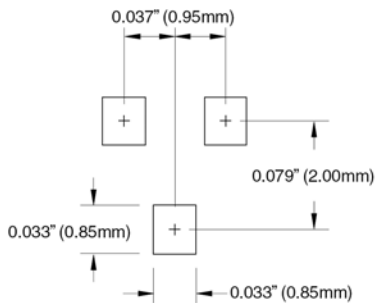




Product dimension and pad size

<p style="text-align: center;">PACKAGE OUTLINE</p>	<p style="text-align: center;">SOT-23</p>			
PACKAGE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.1102	0.1197
B	1.20	1.40	0.0472	0.0551
C	0.89	1.11	0.0350	0.0440
D	0.37	0.50	0.0150	0.0200
G	1.78	2.04	0.0701	0.0807
H	0.013	0.100	0.0005	0.0040
J	0.085	0.177	0.0034	0.0070
K	0.45	0.60	0.0180	0.0236
L	0.89	1.02	0.0350	0.0401
S	2.10	2.50	0.0830	0.0984
V	0.45	0.60	0.0177	0.0236

MOUNTING PAD



Revision History

Revision	Date	Changes
1.0	2008-7-3	-