

DESCRIPTION

The SESMxx series are transient voltage suppressor (TVS) arrays, designed for power or data line applications that provide protection against ESD, tertiary lightning and switching transients. This series offers low clamping voltage for the protection of sensitive interfaces.

FEATURES

- > 350 Watts peak pulse power per Line($t_p=8/20\mu S$)
- > Protects one bidirectional line or two unidirectional lines
- > Low clamping voltage
- > RoHS Compliant

APPLICATIONS

- > Cellular Handsets and Accessories
- > Portable Electronics
- > Industrial Controls
- > Set-Top Box
- > Instrumentation
- > Servers, Notebook, and Desktop PC

IEC COMPATIBILITY

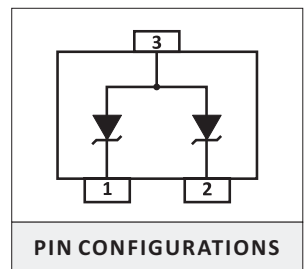
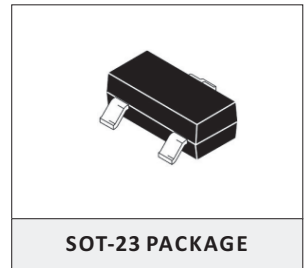
- > IEC61000-4-2 (ESD) $\pm 15kV$ (air), $\pm 8kV$ (contact)
- > IEC61000-4-4 (EFT) 40A (5/50ns)

MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED

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PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power ($t_p=8/20\mu s$ waveform)	P_{PP}	350	Watts
Operating Temperature Range	T_J	-55~125	°C
Storage Temperature Range	T_{STG}	-55~150	°C

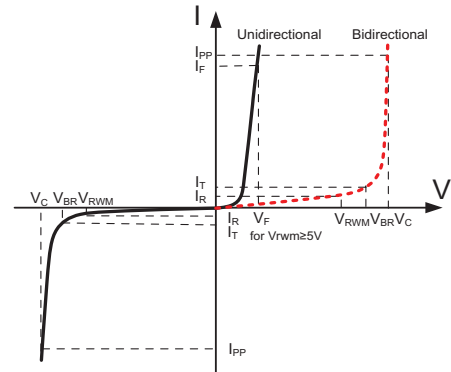
ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED

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PART NUMBER	DEVICE MARKING	V_{RWM} (V) Max.	V_{BR} (V) Min.	I_T (mA)	V_c @1A Max.	V_c		I_R (uA) Max.	C_T (pF) Max.
						Max.	@A		
SESM03	M03	3.3	4.0	1	6.5	15.0	25	100	400
SESM05	M05	5.0	6.0	1	9.8	16.0	24	10	300
SESM08	M08	8.0	8.5	1	13.4	19.0	18	5	250
SESM12	M12	12.0	13.3	1	19.0	24.0	13	1	150
SESM15	M15	15.0	16.7	1	24.0	28.0	6	1	100
SESM24	M24	24.0	26.7	1	43.0	52.0	6	1	90
SESM36	M36	36.0	40.0	1	51	75.0	4	1	60

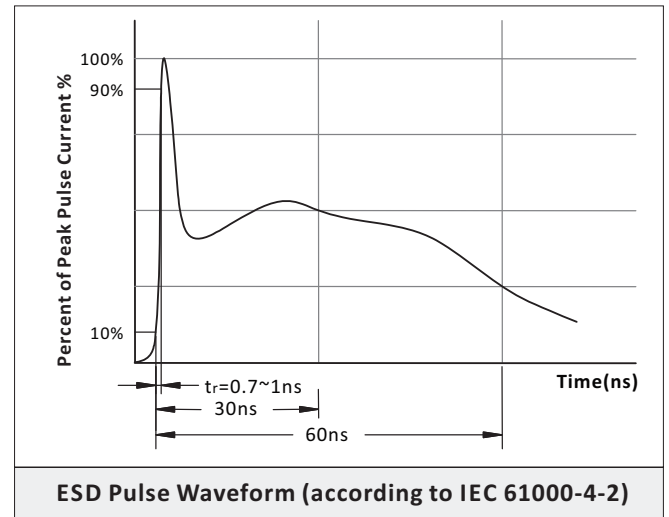
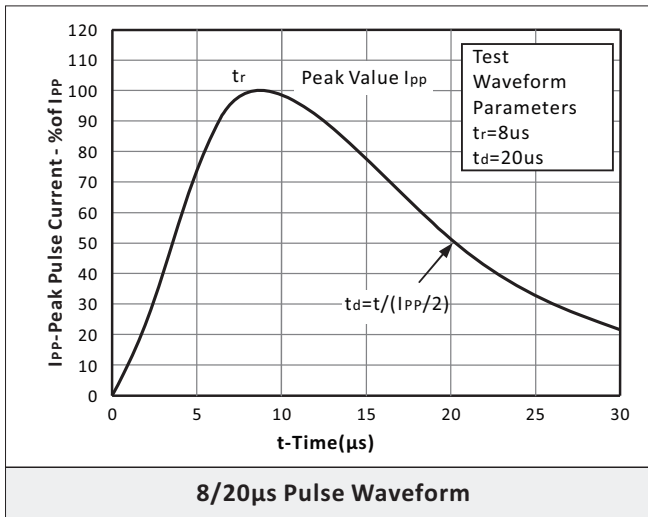


ELECTRICAL PARAMETERS (T=25°C)

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage@ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Reverse Leakage Current@ V_{RWM}
V_{BR}	Breakdown Voltage@ I_T
I_T	Test Current
I_F	Forward Current
V_F	Forward Voltage@ I_F

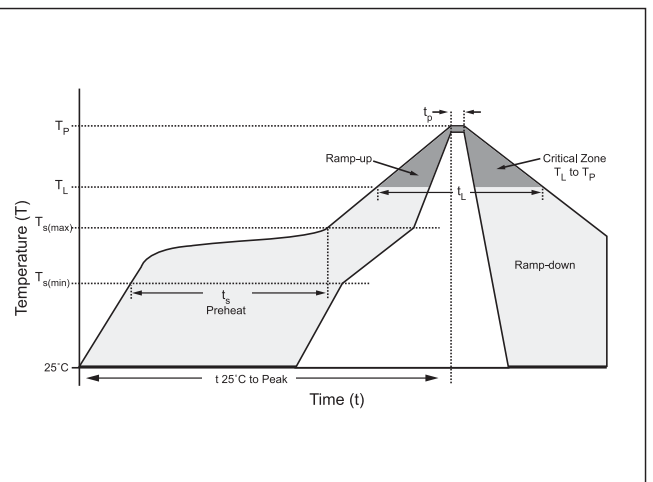


CHARACTERISTIC CURVES



SOLDERING PARAMETERS

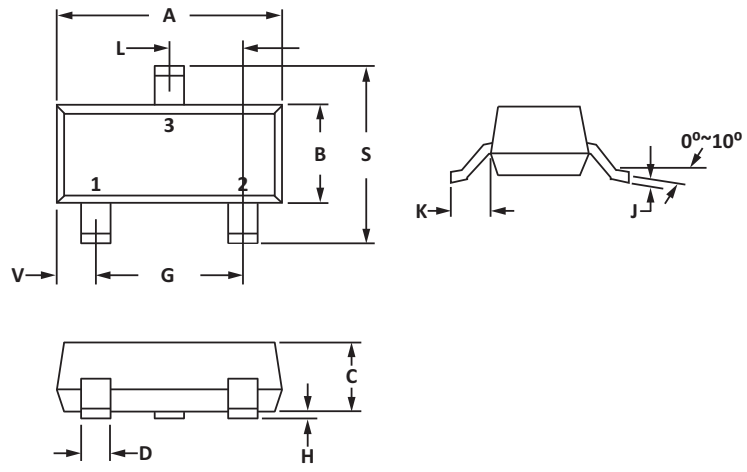
Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min (Ts(min))	150°C
	Temperature Max (Ts(max))	200°C
	Time (min to max) (ts)	60 – 180 secs
Average ramp up rate (Liquidus Temp (TL) to peak)		3°C/second max
Ts(max) to TL - Ramp-up Rate		3°C/second max
Reflow	Temperature (TL) (Liquidus)	217°C
	Time (min to max) (tl)	60 – 150 seconds
Peak Temperature (TP)		260°C
Time within 5°C of actual peak Temperature (tp)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (TP)		8 minutes Max.
Do not exceed		260°C



SOT-23 PACKAGE INFORMATION

OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.89	1.11	0.035	0.044
D	0.37	0.50	0.015	0.020
G	1.78	2.04	0.070	0.081
H	0.013	0.100	0.001	0.004
J	0.085	0.180	0.003	0.007
K	0.35	0.69	0.014	0.029
L	0.89	1.02	0.035	0.040
S	2.10	2.64	0.083	0.104
V	0.45	0.60	0.018	0.024

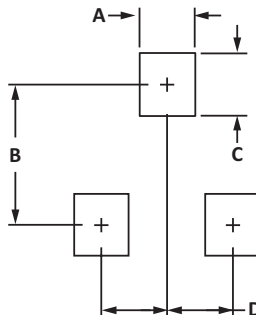
NOTES
1. Controlling dimension: inches.
2. Dimensions are exclusive of mold flash and metal burrs.



RECOMMENDED PAD LAYOUT DIMENSION

PAD LAYOUT DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.71	0.97	0.028	0.038
B	1.88	2.13	0.074	0.084
C	0.71	0.97	0.028	0.038
D	0.81	1.07	0.032	0.042

NOTES
1. Controlling dimension: inches.



ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SESMXX	SOT-23	3000PCS	7"



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