

DESCRIPTION

The SG3D15B3.3MA is a low capacitance transient voltage suppressor array, designed to protect applications such as portable electronics and SMART phones. This series is rated at 350 Watts for an 8/20 μ s waveshape.

The SG3D15B3.3MA meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. The SG3D15B3.3MA offers a low capacitance and low leakage current in a miniature SOD-323 package.

FEATURES

- >350 Watts Peak Pulse Power per Line (tp=8/20 μ s)
- >Protects One Power or I/O Port
- >Low clamping voltage
- >Low leakage current

APPLICATIONS

- >Ethernet - 10/100/1000 Base T
- >Cellular Phones
- >I²C Bus Protection
- >Parallel & Serial Port Protection
- >Personal Digital Assistant (PDA)
- >Microcontroller Input Protection
- >WAN/LAN Equipment

IEC COMPATIBILITY

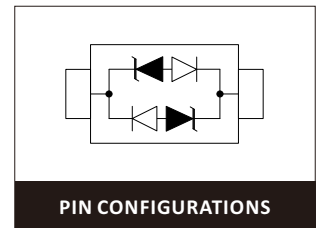
- >IEC61000-4-2 (ESD) \pm 30kV (air), \pm 30kV (contact)
- >IEC61000-4-4 (EFT) 40A (5/50ns)

MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED

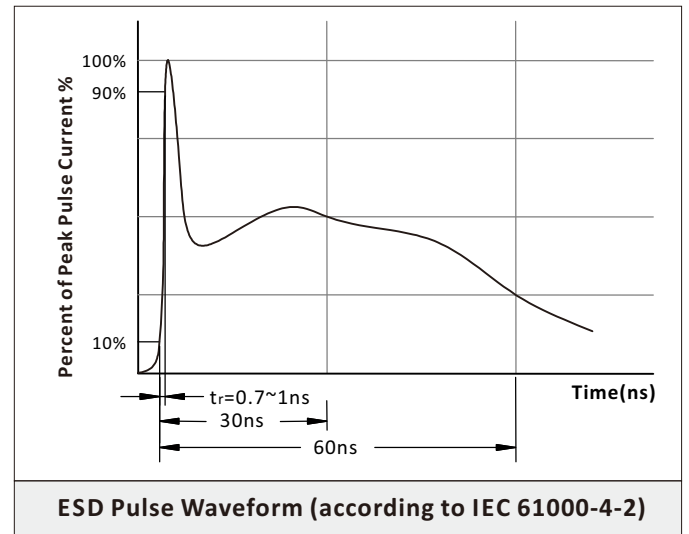
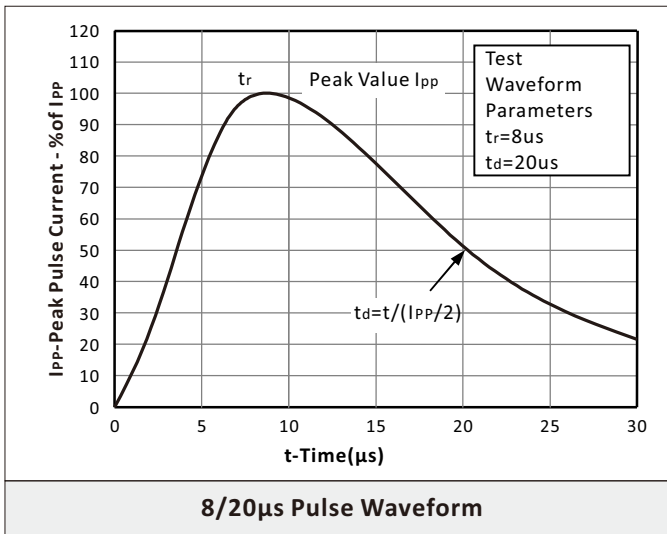
PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20 μ s waveform)	PPP	350	Watts
Operating Temperature Range	T _J	-55~125	°C
Storage Temperature Range	T _{STG}	-55~150	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED

PART NUMBER	DEVICE MARKING	V _{RWM}	V _B	I _T	V _C @1A	V _C		I _R	C _T
		(V) Max.	(V) Min.	(mA)	Max.	Max.	@A	(μ A) Max.	(pF) Typ.
SG3D15B3.3MA	CC	3.3	4.0	1	6	18.0	22.0	1.0	1.0

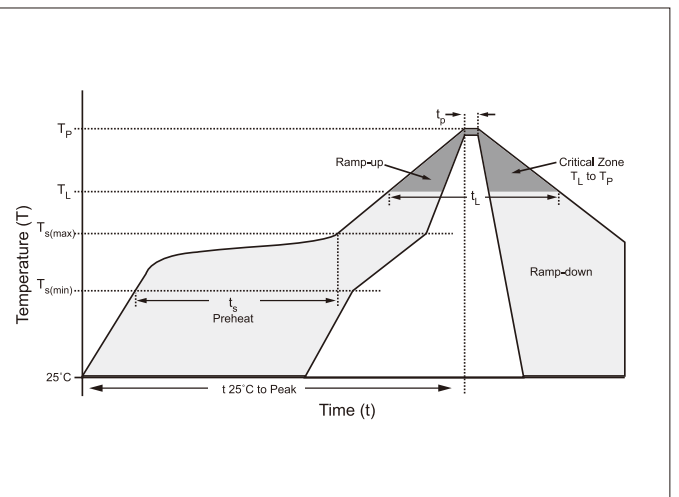


CHARACTERISTIC CURVES



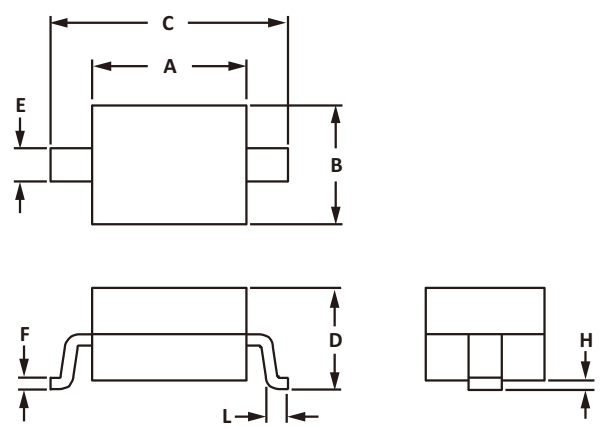
REFLOW PROFILE

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



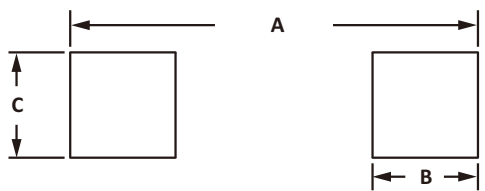
SOD-323 PACKAGE INFORMATION

OUTLINED DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.90	0.063	0.075
B	1.15	1.45	0.045	0.057
C	2.39	2.70	0.094	0.106
D	0.80	1.10	0.031	0.043
E	0.25	0.40	0.010	0.016
F	0.10	0.20	0.004	0.008
H	-	0.10	-	0.004
L	0.20	-	0.008	-



RECOMMENDED PAD LAYOUT DIMENSION

PAD LAYOUT DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.87	3.12	0.113	0.123
B	0.66	0.91	0.026	0.036
C	0.66	0.91	0.026	0.036



ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SG3D15B3.3MA	SOD-323	3000PCS	7"

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