

## FEATURES

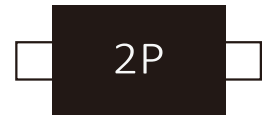
- | 900W Peak Pulse Power per Line (tp=8/20μs)
- | Protects one I/O or power Line
- | Low Clamping Voltage
- | Working Voltages : 48 V

## APPLICATIONS

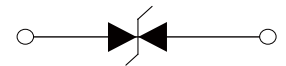
- | Cellular Handsets and Accessories
- | Personal Digital Assistants
- | Notebooks and Handhelds
- | Portable Instrumentation
- | Digital Cameras
- | Peripherals
- | Audio Players
- | Keypads, Side Keys, LCD Displays



SOD-323



Marking



Schematic Symbol

## IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

## APPROVALS

<b>RoHS</b>	Compliance with 2011/65/EU
<b>HF</b>	Compliance with IEC61249-2-21:2003

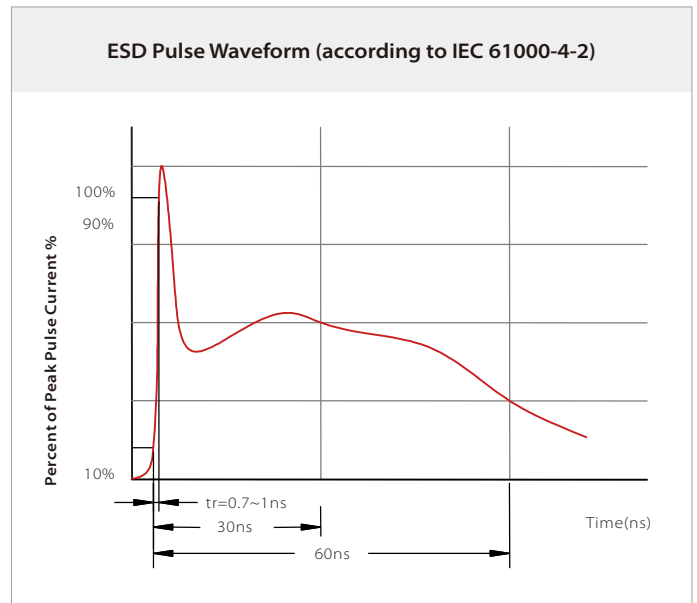
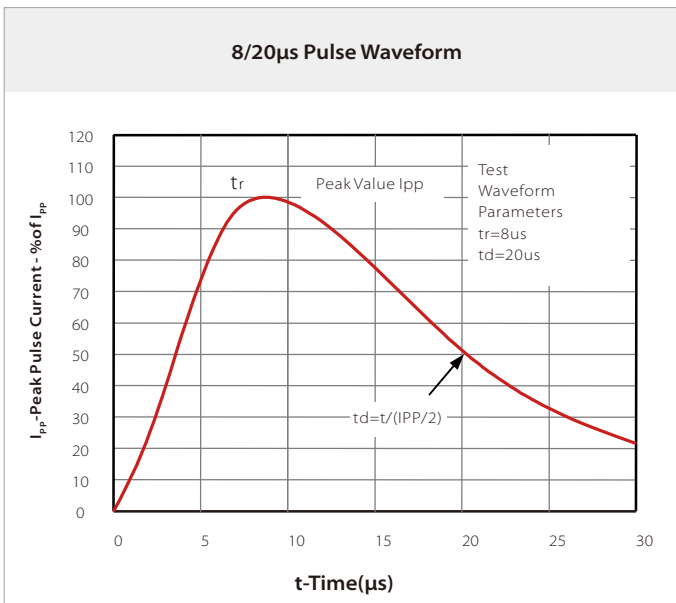
## THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
$P_{PP}$	Peak Pulse Power (tp=8/20μs waveform)	900	Watts
$T_J$	Operating Temperature Range	-55 to +125	°C
$T_{STG}$	Storage Temperature Range	-55 to +150	°C

## ELECTRICAL CHARACTERISTICS

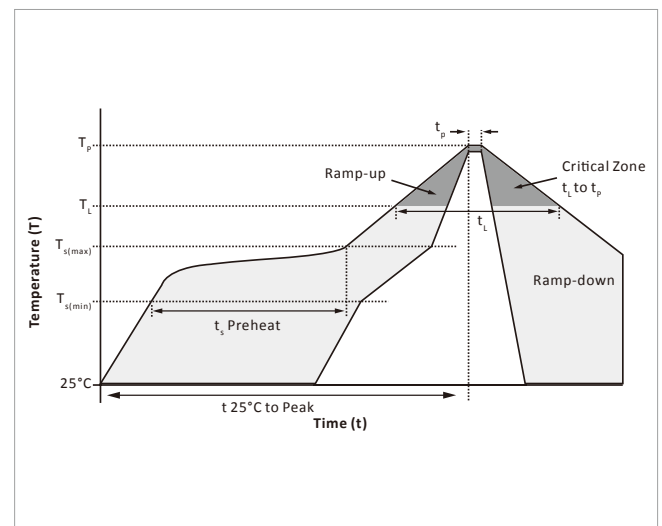
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
$V_{RWM}$	Reverse Stand-off Voltage				48	V
$V_{BR}$	Reverse Breakdown Voltage	$I_T=1mA$	51	54	62	V
$I_R$	Reverse Leakage Current	$V_{RWM}=48V$			0.2	μA
$V_C$	Clamping Voltage (Tp=8/20us)	$I_{pp}=1A, tp=8/20us$		62	72	V
$V_C$	Clamping Voltage (Tp=8/20us)	$I_{pp}=9A, tp=8/20us$		80	100	V
$I_{pp}$	Peak Pulse Current (Tp=8/20us)	tp=8/20us			9	A
$C_J$	Off State Junction Capacitance	$V_R=0V, f=1MHz$		15	25	pF

## CHARACTERISTIC CURVES

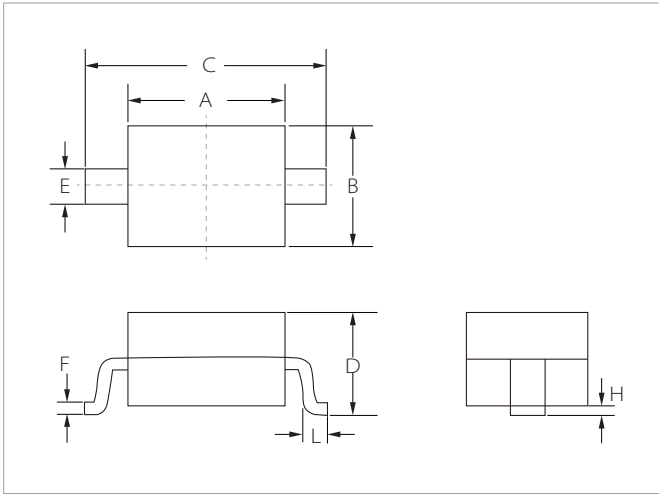


## SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ( $T_{s(min)}$ )	150°C
	Temperature Max ( $T_{s(max)}$ )	200°C
	Time (min to max) ( $t_s$ )	60 – 180 secs
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak)		3°C/second max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/second max
Reflow	Temperature ( $T_L$ ) (Liquidus)	217°C
	Time (min to max) ( $t_L$ )	60 – 150 seconds
Peak Temperature ( $T_p$ )		260°C
Time within 5°C of actual peak Temperature ( $t_p$ )		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature ( $T_p$ )		8 minutes max.
Do not exceed		260°C

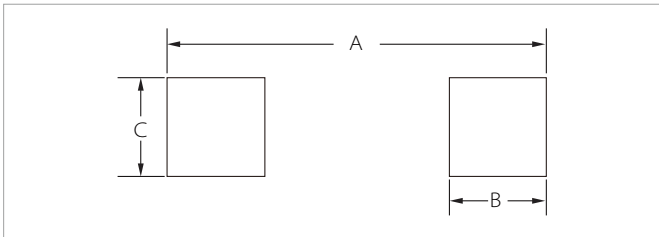


## SOD-323 PACKAGE INFORMATION



Ref.	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	2.75	0.094	0.108
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	0.40	0.008	0.016

## RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	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
SE3D90B48A	SOD-323	3000PCS	7"

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