

FEATURES

- | 120W Peak Pulse Power per Line(tp=8/20us)
- | Ultra low leakage: nA level
- | Low clamping voltage
- | REACH & SVHC Compliant
- | Halogen Compliant

APPLICATIONS

- | Cell Phone Handsets and Accessories
- | Microprocessor based equipment
- | Personal Digital Assistants (PDA' s)
- | Notebooks, Desktops, and Servers
- | Portable Instrumentation
- | Peripherals
- | Pagers



SOD-523



Marking

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

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



Schematic Symbol

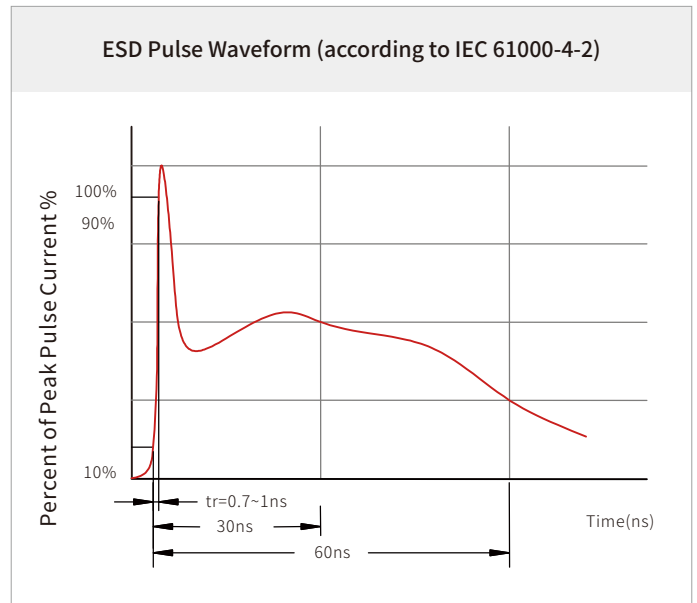
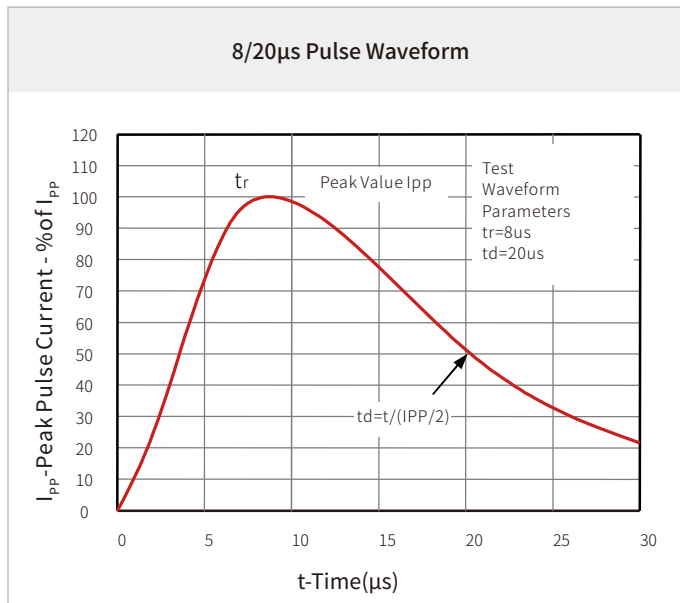
THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
P_{PP}	Peak Pulse Power (tp=8/20 μ s waveform)	120	Watts
T_J	Operating Temperature Range	-40 to +125	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

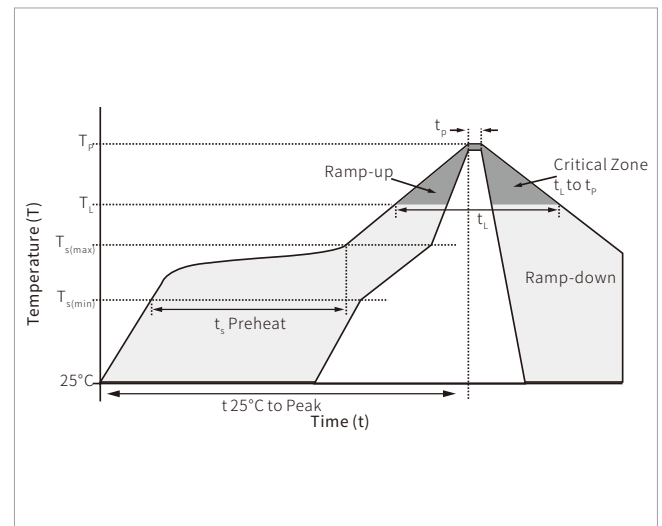
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V_{RWM}	Reverse Stand-off Voltage				6	V
V_{BR}	Reverse Breakdown Voltage	$I_T=1\text{mA}$	6.3	7.1	8.5	V
I_R	Reverse Leakage Current	$V_{RWM}=6\text{V}$		<10	100	nA
V_C	Clamping Voltage	$I_{PP}=1\text{A}, tp=8/20\mu\text{s}$		7.1	9	V
V_C	Clamping Voltage	$I_{PP}=10\text{A}, tp=8/20\mu\text{s}$		8.3	12	V
I_{PP}	Peak Pulse Current	tp=8/20 μ s			10	A
C_J	Off State Junction Capacitance	$V_R=0\text{V}, f=1\text{MHz}$		17	25	pF

CHARACTERISTIC CURVES

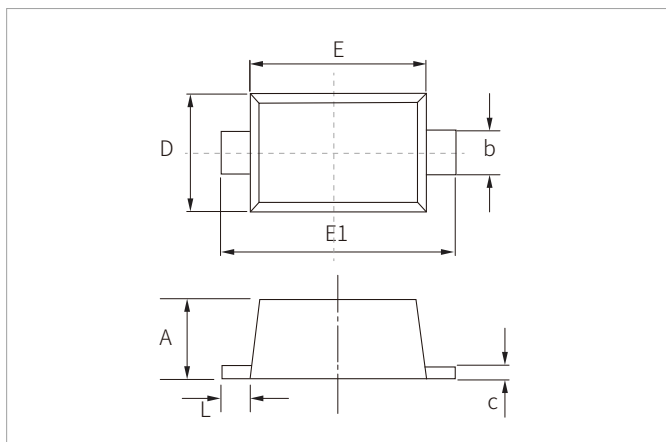


SOLDERING PARAMETERS

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

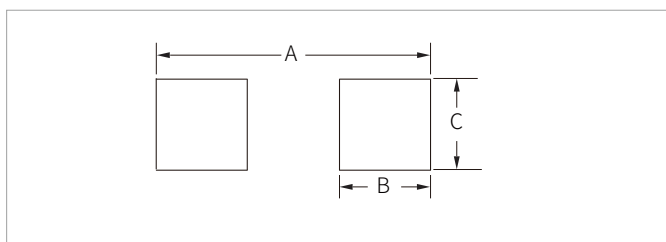


SOD-523 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.50	0.80	0.020	0.031
b	0.25	0.35	0.010	0.014
c	0.07	0.20	0.003	0.008
D	0.70	0.90	0.028	0.035
E	1.10	1.30	0.043	0.051
E1	1.50	1.70	0.059	0.067
L	0.15	0.25	0.006	0.010

RECOMMENDED PAD LAYOUT DIMENSIONS



Ref.	Millimeters	Inches
	Min.	Min.
A	2.00	0.0787
B	0.60	0.0236
C	0.70	0.0276

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE5D10B6.0A	SOD-523	3000PCS	7"

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By QR Code

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