

FEATURES

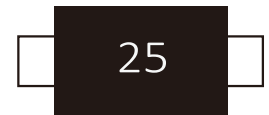
- | 100W Peak Pulse Power per Line (tp=8/20μs)
- | Ultra low leakage: nA leve
- | Low clamping voltage
- | Working voltages : 5 V
- | Low leakage current
- | Ultra Low capacitance
- | Meet AEC-Q101 Requirements

APPLICATIONS

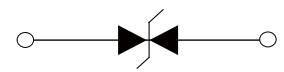
- | Cellular Handsets and Accessories
- | Display Ports
- | MDDI Ports
- | USB Ports
- | Digital Visual Interface(DVI)
- | PCI Express and Serial SATA Ports



SOD-523



Marking



Schematic Symbol

IEC COMPATIBILITY

- | IEC61000-4-2 (ESD) ±25kV (air), ±22kV (contact)
- | IEC61000-4-4 (EFT) 40A (5/50ns)

APPROVALS

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

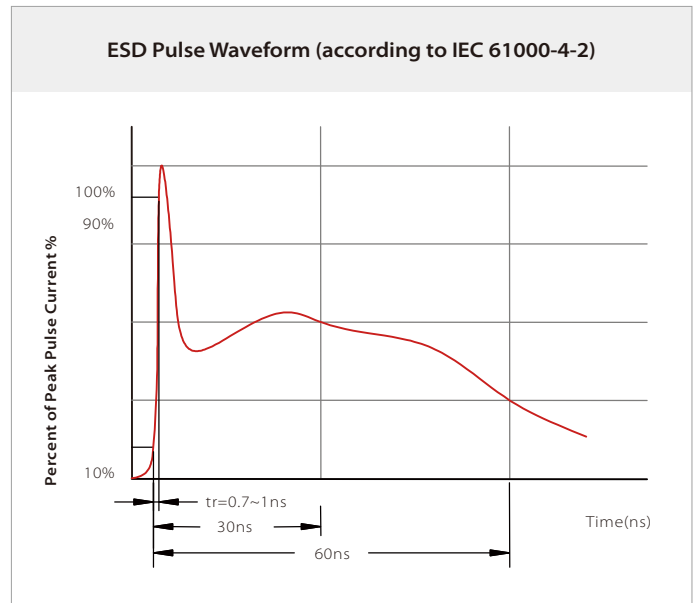
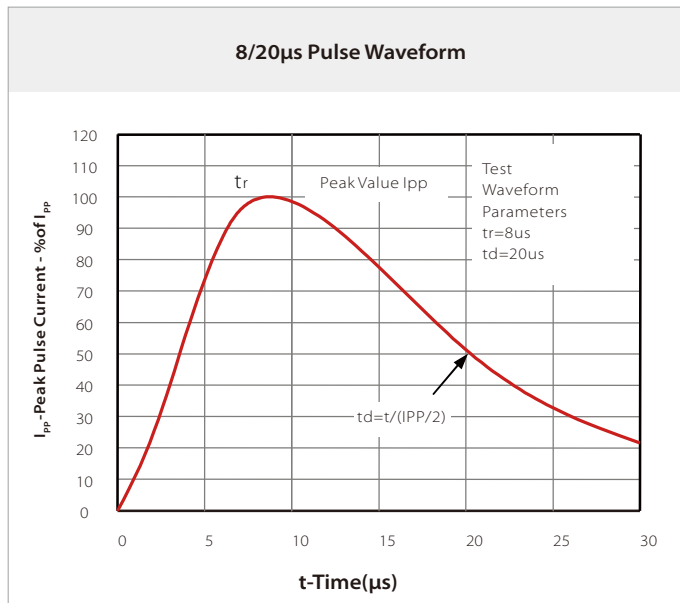
THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
P _{PP}	Peak Pulse Power (tp=8/20μs waveform)	100	Watts
T _J	Operating Temperature Range	-55 to +125	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

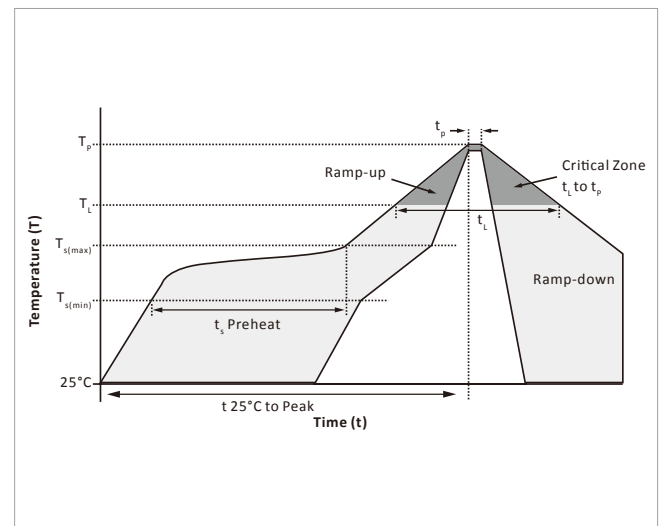
Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
V _{RWM}	Reverse Stand-off Voltage				5	V
V _{BR}	Reverse Breakdown Voltage	I _T =1mA	6.5		9.5	V
I _R	Reverse Leakage Current	V _{RWM} =5V			0.2	μA
V _C	Clamping Voltage (Tp=8/20us)	I _{pp} =1A, tp=8/20us			12	V
V _C	Clamping Voltage (Tp=8/20us)	I _{pp} =4A, tp=8/20us			25	V
I _{PP}	Peak Pulse Current (Tp=8/20us)	tp=8/20us			4	A
C _J	Off State Junction Capacitance	V _R =0V, f=1MHz		0.3	0.5	pF

CHARACTERISTIC CURVES

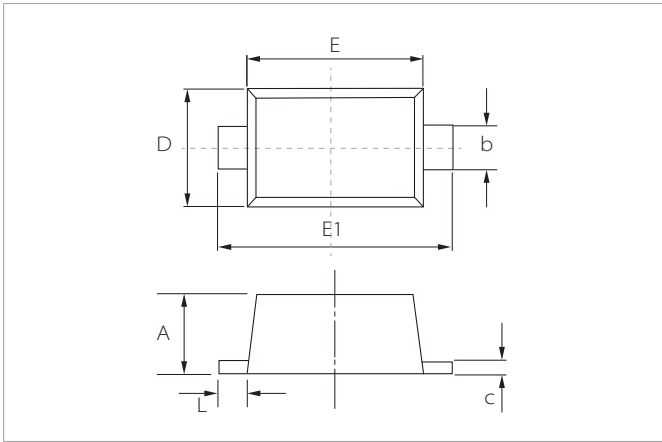


SOLDERING PARAMETERS

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

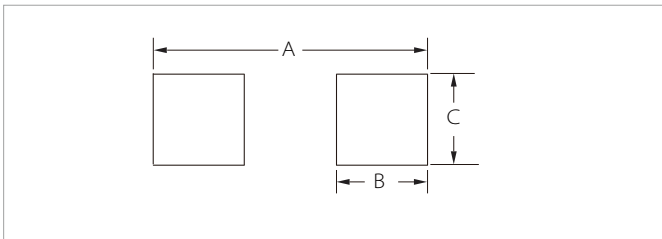


SOD-523 PACKAGE INFORMATION



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.	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
TPSE5D10B5.0MA	SOD-523	3000PCS	7"

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By QR Code

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