

FEATURES

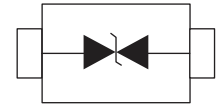
- | 350W Peak Pulse Power per Line (tp=8/20μs)
- | Protects one power or I/O Port
- | Low Clamping Voltage
- | Low leakage current

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



SOD-323



Schematic Symbol

IEC COMPATIBILITY

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

APPROVALS

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

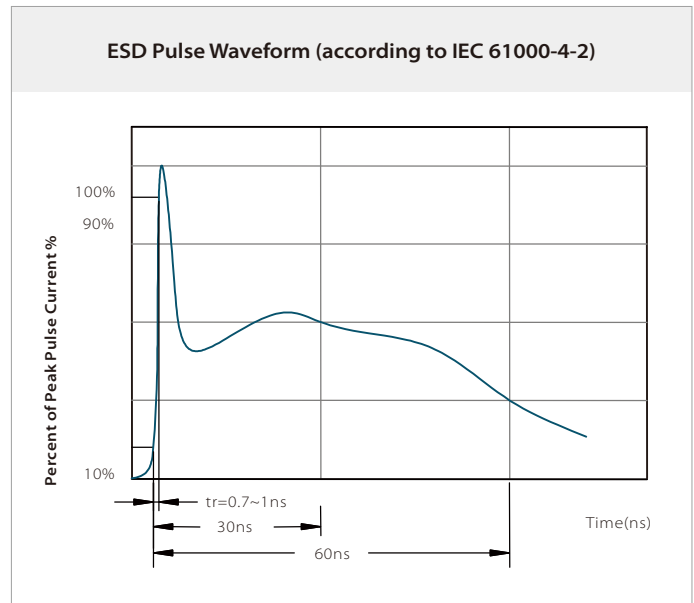
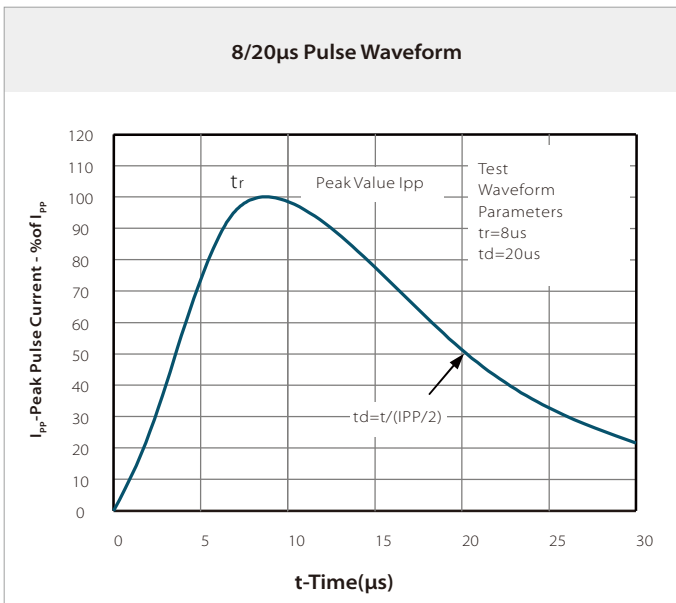
THERMAL CONSIDERATIONS

Symbol	Parameter	Value	Unit
P _{PP}	Peak Pulse Power (tp=8/20μs waveform)	350	Watts
T _J	Operating Temperature Range	-55 to +150	°C
T _{STG}	Storage Temperature Range	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

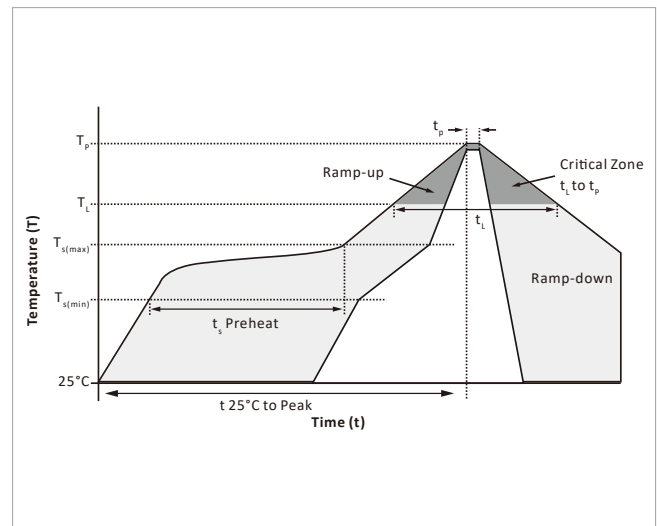
PART NUMBER	Marking	V _{RWM} (V) Max.	V _B (V) Min.	I _T mA	V _{C@1A} (V) Max.	V _C (V)		I _R (μA) Max.	C _T (pF) Max.
						Max.	(@A)		
SD03C	2A	3.3	4.0	1.0	7.5	16.0	20.0	40.0	450
SD05C	2B	5.0	6.0	1.0	9.8	18.0	17.0	10.0	200
SD08C	2C	8.0	8.5	1.0	13.4	24.0	15.0	2.0	120
SD12C	2D	12.0	13.3	1.0	19.0	32.0	11.0	1.0	75.0
SD15C	2J	15.0	16.7	1.0	24.0	38.0	10.0	1.0	68.0
SD18C	2K	18.0	20.0	1.0	29.0	45.0	9.0	1.0	57.0
SD20C	2L	20.0	22.3	1.0	35.0	50.0	8.0	1.0	52.0
SD24C	2H	24.0	26.7	1.0	43.0	52.0	7.0	1.0	50.0
SD36C	2N	36.0	40.0	1.0	60.0	75.0	4.5	1.0	35.0

CHARACTERISTIC CURVES

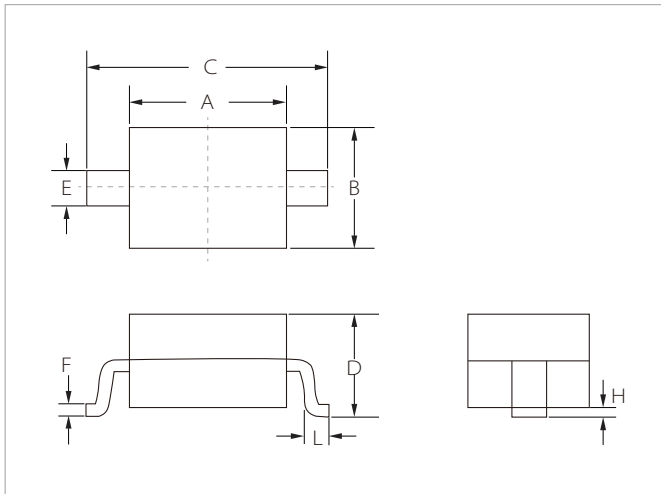


SOLDERING PARAMETERS

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

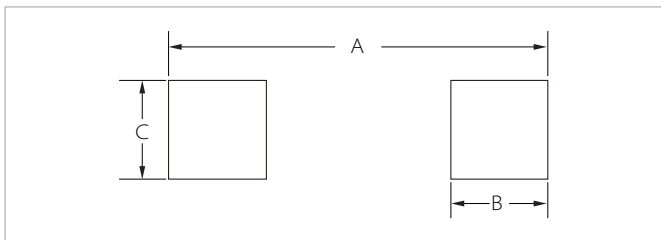


SOD-323 PACKAGE INFORMATION



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
SD03-SD36C	SOD-323	3000PCS	7"

To find your local partner within Semiwell's website : www.semiwell.com.cn

©2023 Semiwell Microelectronics Co.,Ltd.

The content of this document has been carefully checked and understood. However, neither Semiwell nor its subsidiaries assume any liability whatsoever for any errors or inaccuracies of this document and the consequences thereof. Published specifications are subject to change without notice. Product suitability for any area of application must ultimately be determined by the customer. In all cases, products must never be operated outside their published specifications. Semiwell does not guarantee the availability of all published products. This disclaimer shall be governed by substantive Chinese law and resulting disputes shall be settled by the courts at the place of business of Semiwell. Latest publications and a complete disclaimer can be downloaded from the Semiwell website. All trademarks recognized.