

■ Bidirectional ESD Protection Diodes

Features

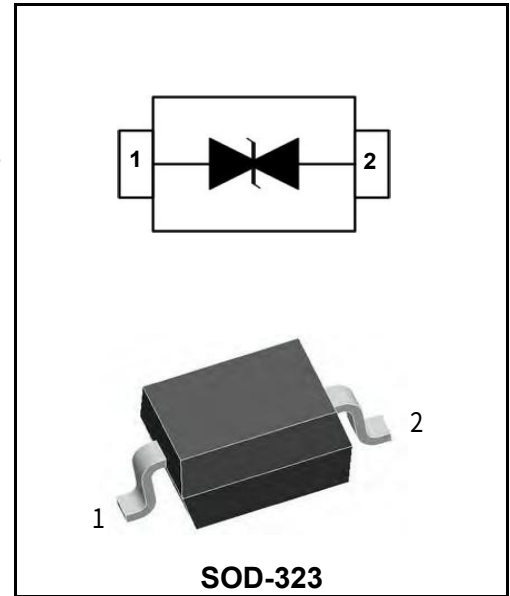
- Bidirectional ESD protection of one line.
- Max. peak pulse power : $P_{pp} = 350W$ at $t_p = 8/20 \mu s$
- ESD protection $>25 kV$ per MIL-STD-883C, Method 3015-6:Class3
- IEC 61000-4-2, level 4 (ESD), $>15KV$ (air) ; $>8KV$ (contact) .

Application

- Computers and peripherals
- Communication system
- Notebooks. Desktops & Servers.
- Portable electronics
- Cellular handsets and accessories.

General Description

Electro Static Discharge (ESD) protection diodes in ultra small SMD Plastic packages designed to protect one signal line from the damage caused by ESD and other transients.



Marking Code

ESD3Z12C	WBC
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Absolute maximum ratings ($T_a=25^{\circ}C$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power($t_p=8/20\mu s$)	P_{PPM}	350	W
Peak Pulse Current($t_p=8/20\mu s$)	I_{PP}	15	A
Operating Junction Temperature	T_J	-55 to +150	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}C$

Electrical Characteristics($T_A = 25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{DRM}				12.0	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	13.3		15.5	V
Reverse Leakage Current	I_R	$V_{RWM}=12V, T_a=25^{\circ}C$			1.0	μA
Clamping Voltage	V_C	$I_{PP}=15A, t_p=8/20\mu s$			24	V
Junction Capacitance	C_j	$V_R=0V, f=1MHz$			100	pF

Typical Characteristics

Fig.1 Non-Repetitive Peak Pulse Power vs. Pulse Time

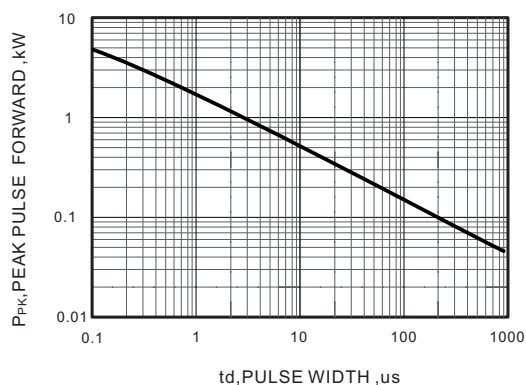


Fig.2 Forward Current Derating Curve

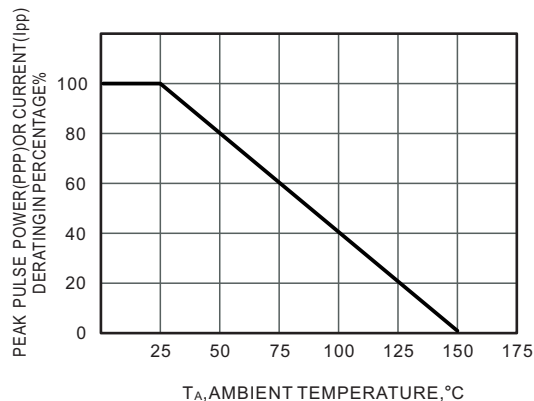


Fig.3 Waveform

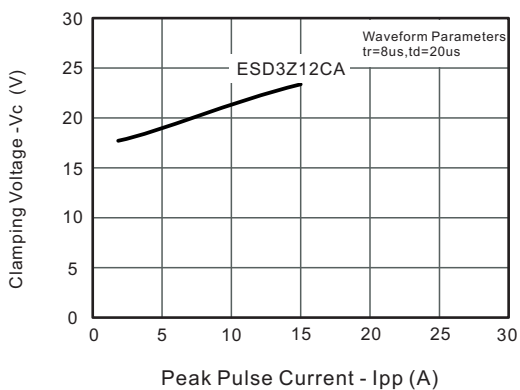


Fig.4 Power Derating Curve

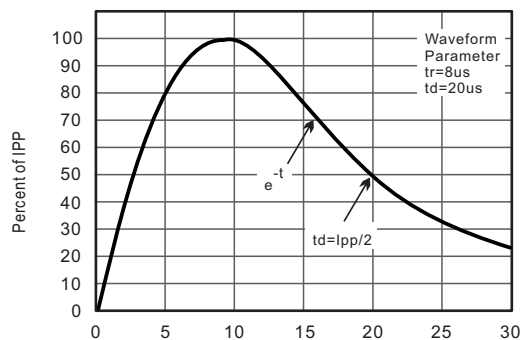
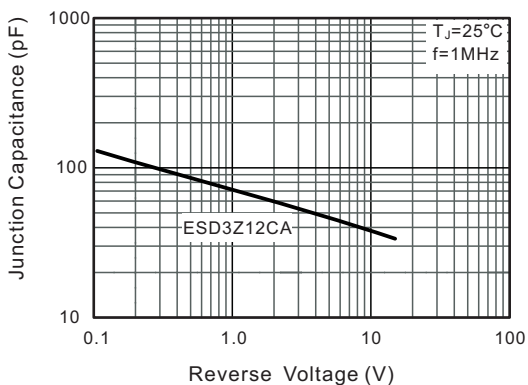


Fig.5 Typical Junction Capacitance



Ordering information

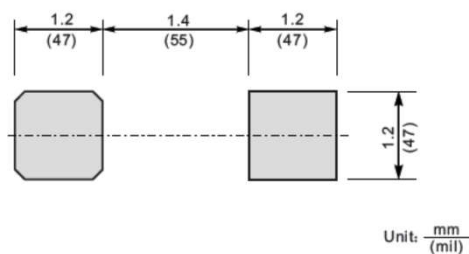
Package	Packing Description	Packing Quantity
SOD-323	Tape/Reel, 7" reel	3000PCS/Reel 120000PCS/Carton

Package Dimensions

SOD-323

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	0.8	1.1	32	43
C	0.08	0.15	3.1	5.9
D	1.2	1.4	47	55
E	1.4	1.8	63	70
E1	2.55	2.75	100	108
b	0.25	0.4	9.8	16
L1	0.2	0.45	7.9	16
A1	-	0.2	-	8
∠	9°			

The recommended mounting pad size



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