

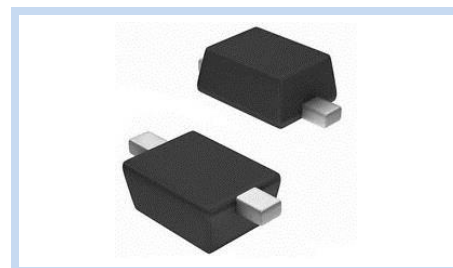
ESD Suppressor 5V Bidirectional SOD-323F

ME51B14V5S323F

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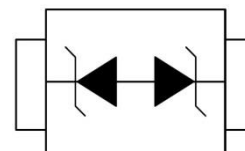
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- IEC 61000-4-5 Lightning: 24A (8/20 μs)
- ESD Protection for One Bidirectional Channel
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- Personal Digital Assistants (PDAs)
- Serial ATA Protection
- USB 2.0 and USB 3.0 Interface
- Digital Visual Interface (DVI)
- RF Interface
- 10/100/1000 Ethernet



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 8	KV
ESD Voltage (Air discharge)		± 15	
Peak Pulse Power (tp=8/20 μs)	P_{PP}	350	W
Lead Soldering Temperature (10 Seconds)	T_L	260	$^{\circ}\text{C}$
Operating Temperature Range	T_J	-55~+125	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V_{RWM}	--	--	5	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	6.37	--	7.04	V
Reverse Leakage Current	$V_R=5\text{V}$	I_R	--	--	5	μA
Clamping Voltage	$I_{PP}=5\text{A}$, tp=8/20 μs	V_C	--	--	9.8	V
	$I_{PP}=24\text{A}$, tp=8/20 μs		--	--	14.5	
Off State Junction Capacitance	$V_{dc}=0$, f=1MHz	C_J	--	--	200	pF

Notes: $T_J=25^{\circ}\text{C}$ unless otherwise specified

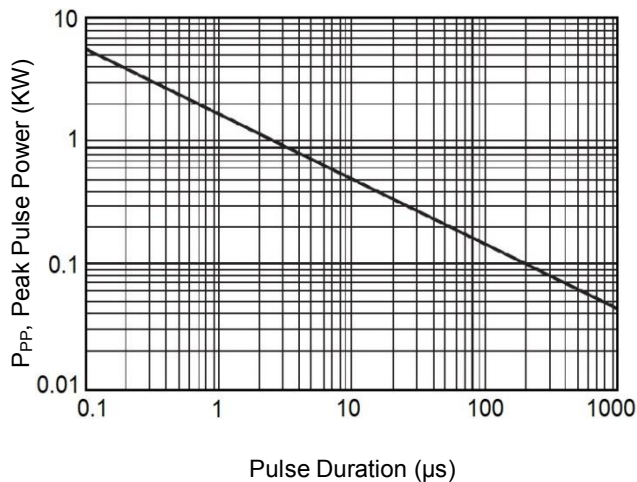
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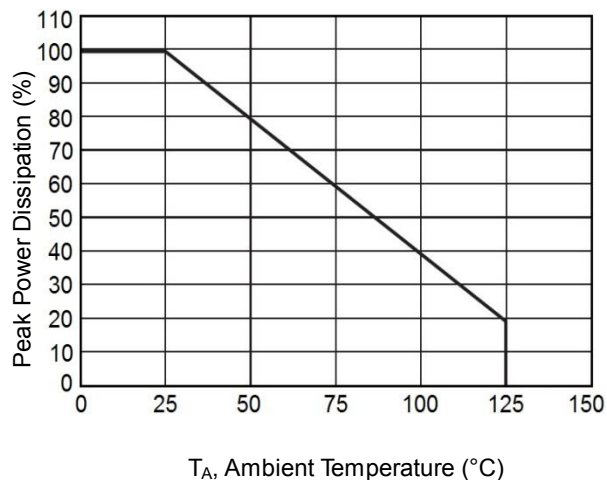
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CHARACTERISTIC CURVES

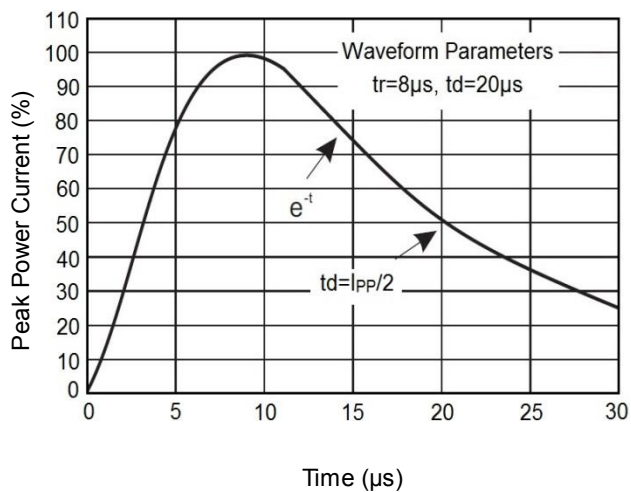
Non-Repetitive Peak Pulse Power vs. Pulse Time



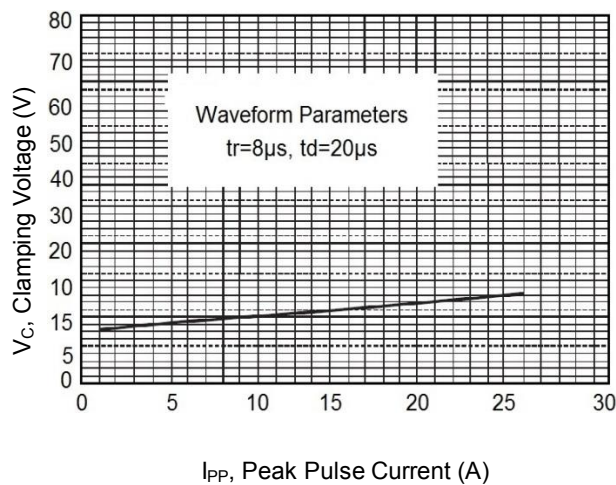
Derating Curve



Pulse Waveforms



Clamping Voltage vs. Peak Pulse Current



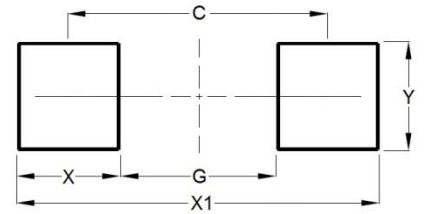
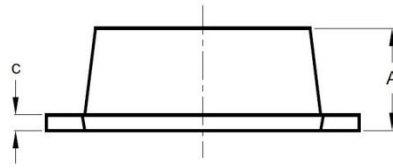
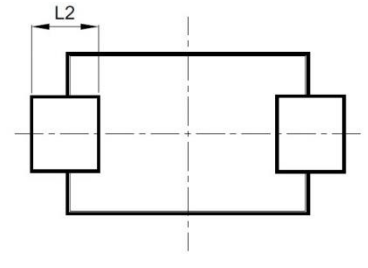
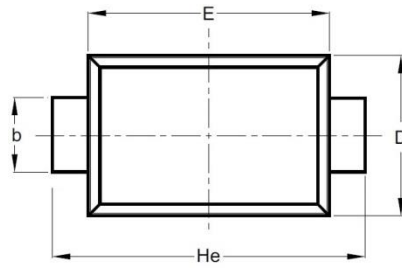
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.70	0.90
b	0.25	0.35
C	0.05	0.15
D	1.15	1.35
E	1.75	1.95
He	2.30	2.70
L2	0.30	-
C	2.00	2.00
G	1.30	1.30
X	0.70	0.70
X1	2.70	2.70
Y	0.40	0.40



*Specifications subject to change without notice.