

ESD Suppressor 5.5V Bidirectional DFN1608

ME5V51B8D03

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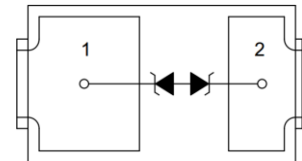
FEATURE

- IEC 61000-4-2 ESD: $\pm 15\text{KV}$ (Air) $\pm 8\text{KV}$ (Contact)
- ESD Protection for one Bidirectional Channel
- Low Leakage Current
- Low Clamping Voltage



APPLICATION

- USB 2.0 and USB 3.0
- High Definition Multi-Media Interface (HDMI)
- Display Port Interface
- SATA and eSATA Interface
- Desktops and Notebooks



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 8	KV
ESD Voltage (Air discharge)		± 15	
Operating & Storage Temperature Range	T_J, T_{STG}	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V_{RWM}	--	--	5.5	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	6	--	8	V
Reverse Leakage Current	$V_R=5.5\text{V}$	I_R	--	--	5	μA
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	V_C	--	--	8	V
	$I_{PP}=5\text{A}, t_p=8/20\mu\text{s}$		--	--	12	
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$	C_J	--	30	--	pF

Notes:

1. $T_J=25^{\circ}\text{C}$ unless otherwise specified

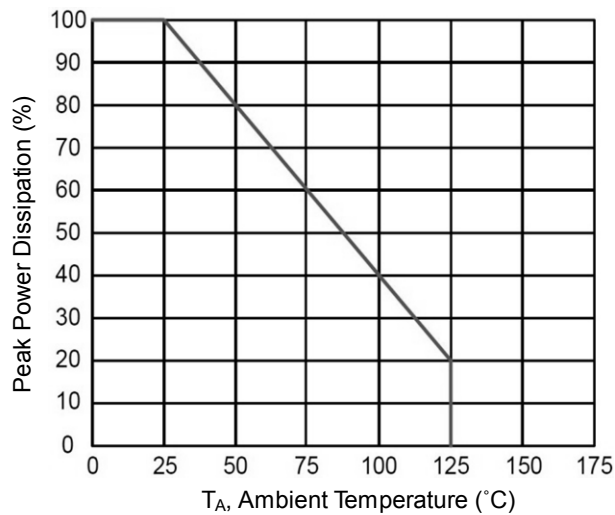
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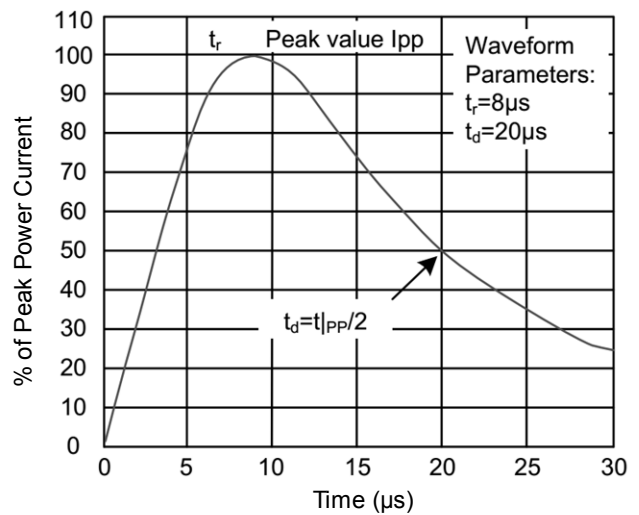
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CHARACTERISTIC CURVES

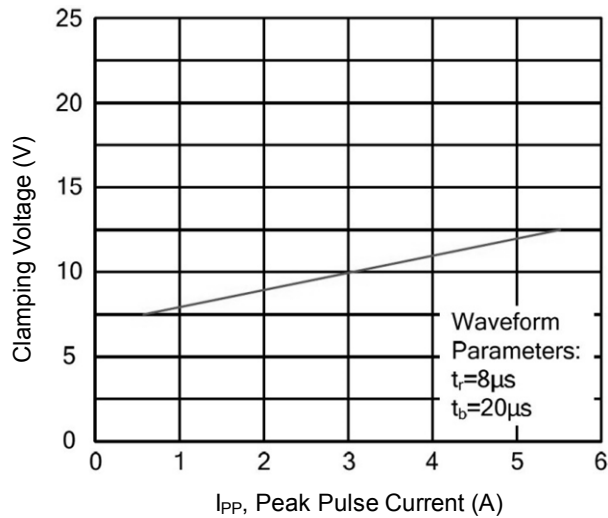
Power Derating Curve



Pulse Waveform



Clamping Voltage vs. Peak Pulse Current



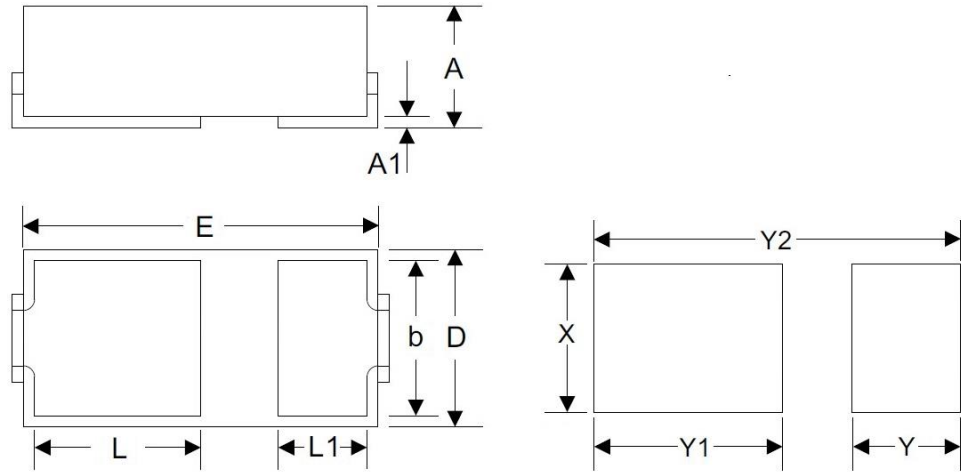
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.45	0.65
A1	0.04	0.04
b	0.67	0.75
D	0.75	0.85
E	1.55	1.65
L	0.72	0.80
L1	0.32	0.50
X	0.80	0.80
Y	0.65	0.65
Y1	1.05	1.05
Y2	1.90	1.90



*Specifications subject to change without notice.