

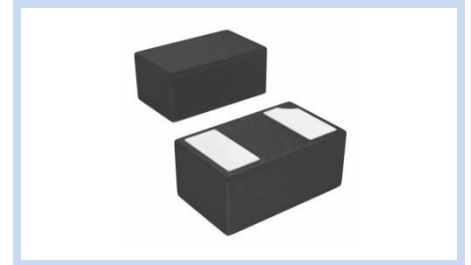
ESD Suppressor 5V Bidirectional DFN1006

ME51B14D02

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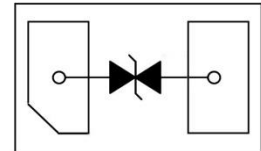
FEATURE

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



APPLICATION

- Cell Phone Handsets and Accessories
- Notebooks, Desktops, and Servers
- PCI Express, SATA, USB 2.0, DVI, Display Port
- Portable Instrumentation



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage (Contact discharge)	V_{ESD}	± 15	KV
ESD Voltage (Air discharge)		± 15	
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	30	W
Operating Temperature Range	T_J	$-55\sim+125$	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	$-55\sim+150$	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Parameter	Condition	Symbol	Min.	Typ.	Max.	Unit
Reverse Stand-Off Voltage	--	V_{RWM}	--	--	5.0	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	5.5	--	9.0	V
Reverse Leakage Current	$V_R=5\text{V}$	I_R	--	--	50	nA
Clamping Voltage	$I_{PP}=1\text{A}$, $t_p=8/20\mu s$	V_C	--	--	14	V
Off State Junction Capacitance	$V_{dc}=0$, $f=1\text{MHz}$, Between I/O pin and GND	C_J	--	0.3	0.6	pF

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

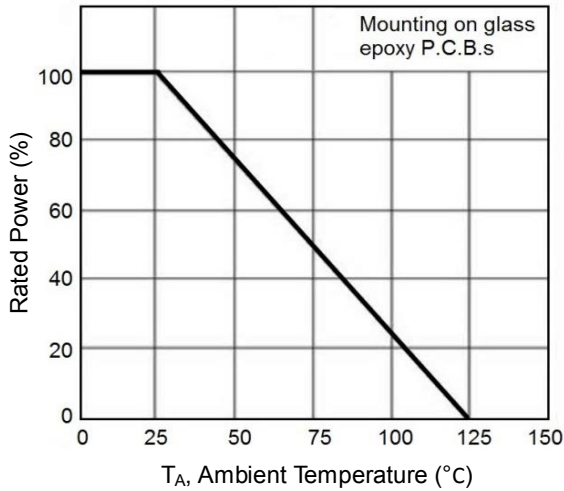
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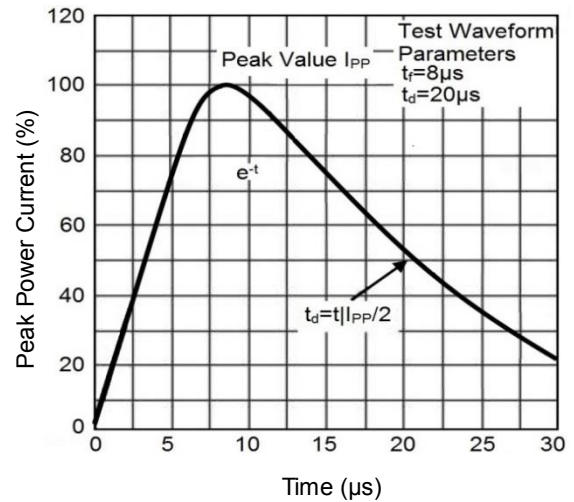
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CHARACTERISTIC CURVES

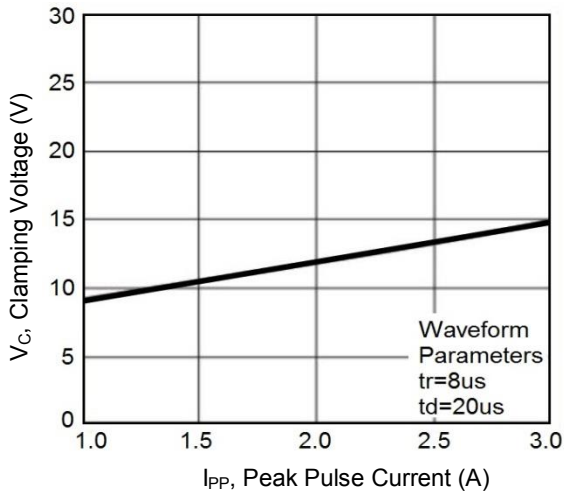
Derating Curve



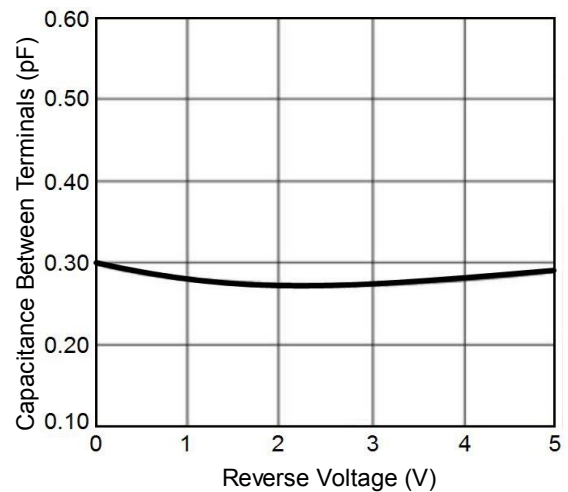
Pulse Waveforms



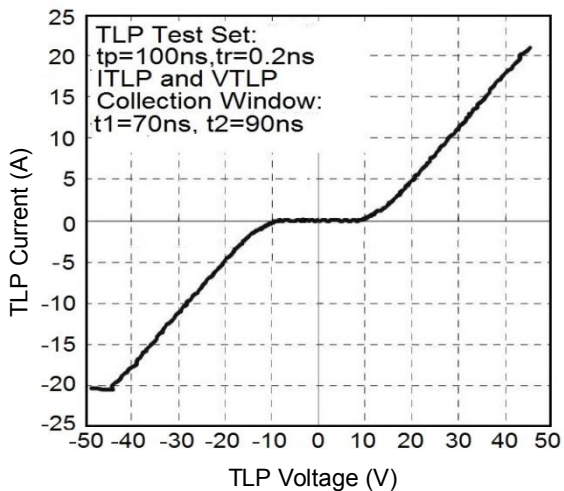
Clamping Voltage vs. Peak Pulse Current



Capacitance vs. Reverse Voltage



TLP Measurement



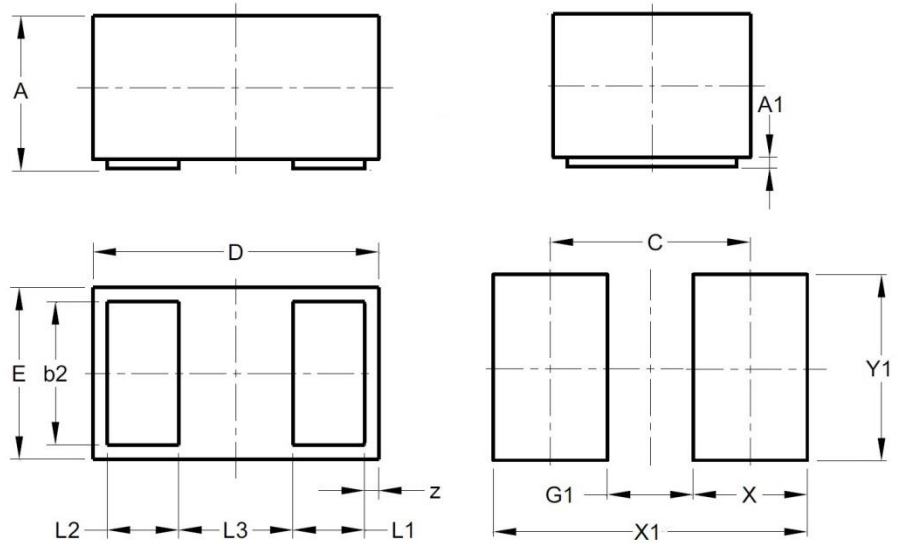
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.45	0.55
A1	-	-
b2	0.50	0.50
D	0.95	1.05
E	0.55	0.65
z	-	-
L1	0.35	0.35
L2	0.35	0.35
L3	0.30	0.30
C	0.70	0.70
G1	0.30	0.30
X	0.40	0.40
X1	1.10	1.10
Y1	0.60	0.60



*Specifications subject to change without notice.