

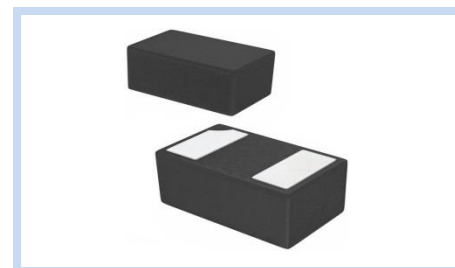
ESD Suppressor 7V Unidirectional DFN1610

ME71U20D1610

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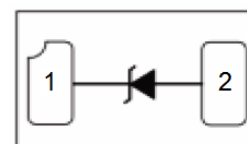
FEATURE

- IEC 61000-4-2 ESD: $\pm 30\text{KV}$ (Air) $\pm 30\text{KV}$ (Contact)
- ESD Protection for one Unidirectional Channel
- Low Leakage Current
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- Power Line Protection
- Power Management Systems
- Hand Held Portable Applications
- Mobile Device Applications
- Microprocessors Protection



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage per IEC61000-4-2 (Contact discharge)	V_{ESD}	± 30	KV
ESD Voltage per IEC61000-4-2 (Air discharge)		± 30	KV
Peak Pulse Current ($t_p=8/20\mu s$)	I_{PP}	70	A
Peak Pulse Power ($t_p=10/1000\mu s$)	P_{PP}	120	W
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}	--	--	7	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	7.3	--	--	V
Reverse Leakage Current	$V_R=7\text{V}$	I_R	--	--	1	μA
Clamping Voltage	$I_{PP}=1\text{A}, t_p=8/20\mu s$	V_C	--	--	20	V
	$I_{PP}=70\text{A}, t_p=8/20\mu s$		--	--	35	
Off State Junction Capacitance	$V_{dc}=0, f=1\text{MHz}$, Between I/O pins and GND	C_J	--	800	1000	pF

Notes:

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

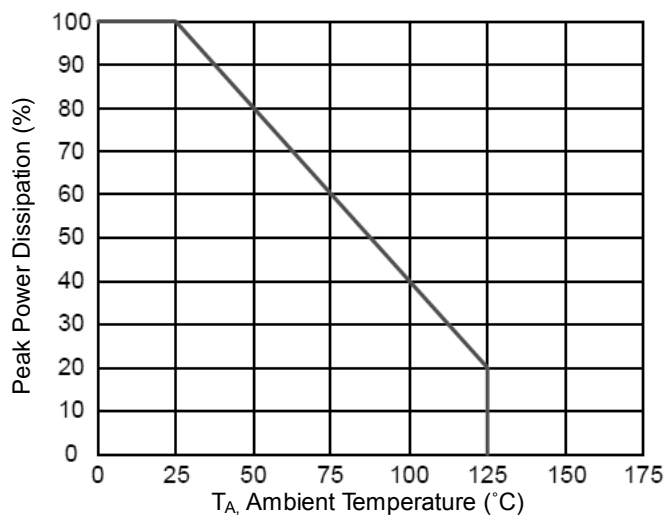
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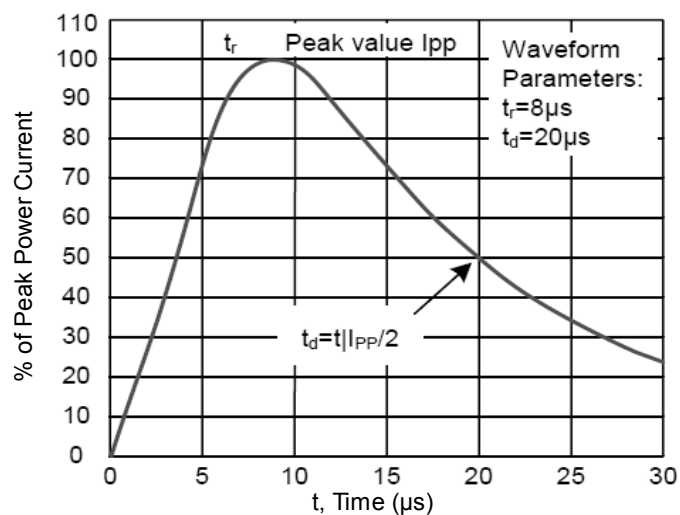
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CHARACTERISTIC CURVES

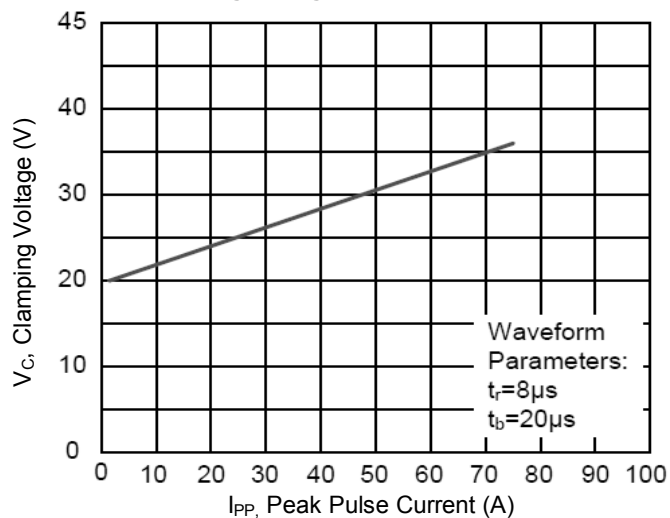
Power Derating Curve



Pulse Waveforms



Clamping Voltage vs. Peak Pulse Current



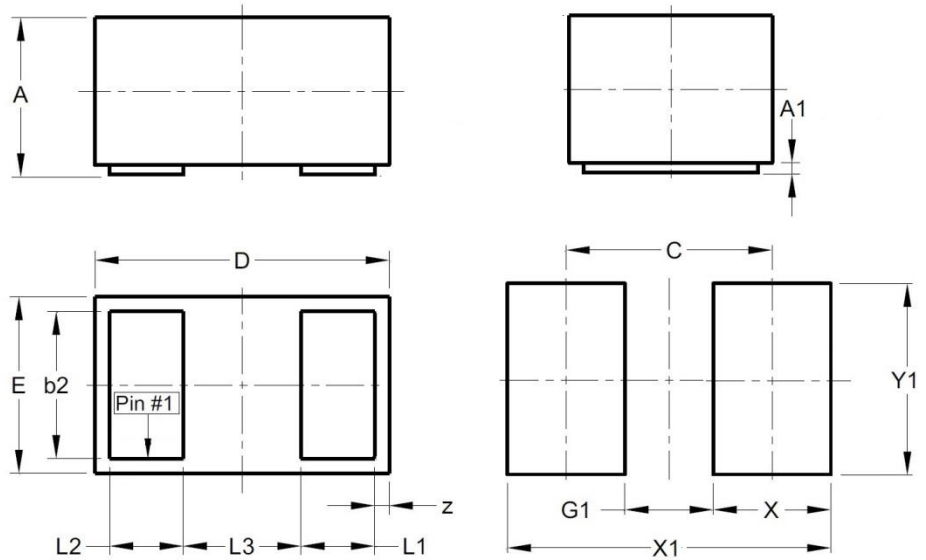
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.55	0.66
A1	0.00	0.05
b2	0.80	0.80
D	1.55	1.68
E	0.95	1.08
z	0.10	0.10
L1	0.35	0.45
L2	0.35	0.45
L3	0.30	0.30
C	1.20	1.20
G1	0.60	0.60
X	0.62	0.62
X1	1.85	1.85
Y1	1.00	1.00



*Specifications subject to change without notice.