

ESD Suppressor 28V Unidirectional DFN1006

ME281U55D02

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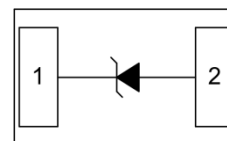
FEATURE

- IEC 61000-4-2 ESD: $\pm 20\text{KV}$ (Air) $\pm 15\text{KV}$ (Contact)
- IEC 61000-4-4 EFT: 40A (5/50ns)
- IEC 61000-4-5 Lightning: 3A (8/20 μs)
- ESD Protection for one Unidirectional Channel
- Low Leakage Current
- Low Clamping Voltage
- Solid-State Silicon-Avalanche Technology



APPLICATION

- Cellular Handsets and Accessories
- Small Panel Modules
- PDA's
- Portable Devices
- Peripherals



MAXIMUM RATINGS AND CHARACTERISTICS

Parameter	Symbol	Value	Unit
ESD Voltage per IEC61000-4-2 (Contact discharge)	V_{ESD}	± 15	KV
ESD Voltage per IEC61000-4-2 (Air discharge)		± 20	KV
Peak Pulse Power Dissipation (tp=8/20 μs)	P_{PP}	165	W
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}	--	--	28	V
Reverse Breakdown Voltage	$I_{BR}=1\text{mA}$	V_{BR}	29	--	35	V
Reverse Leakage Current	$V_R=28\text{V}$	I_R	--	--	0.5	μA
Clamping Voltage	$I_{PP}=1\text{A}$, tp=8/20 μs	V_C	--	38	45	V
	$I_{PP}=3\text{A}$, tp=8/20 μs		--	48	55	
Dynamic Resistance	tp=8/20 μs	R_{DYN}	--	5	--	Ω
Off State Junction Capacitance	Vdc=0, f=1MHz	C_J	--	--	25	pF

Notes:

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

2. Dynamic Resistance calculated from $I_{PP}=1\text{A}$ to $I_{PP}=3\text{A}$

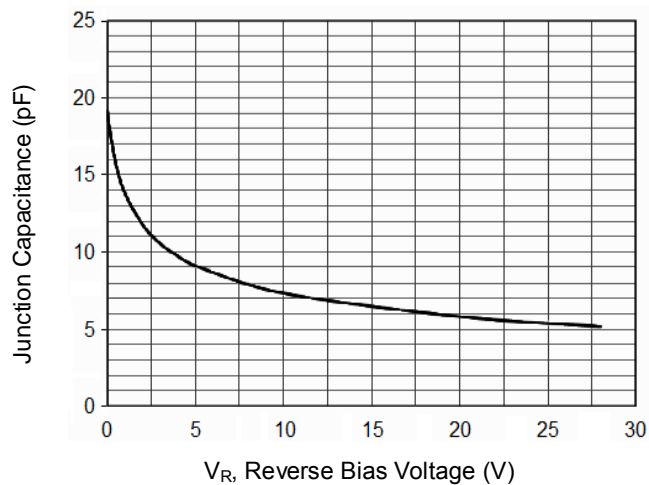
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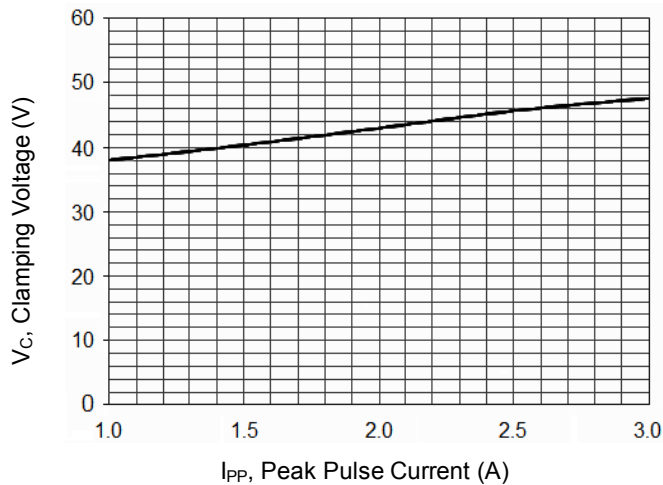
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CHARACTERISTIC CURVES

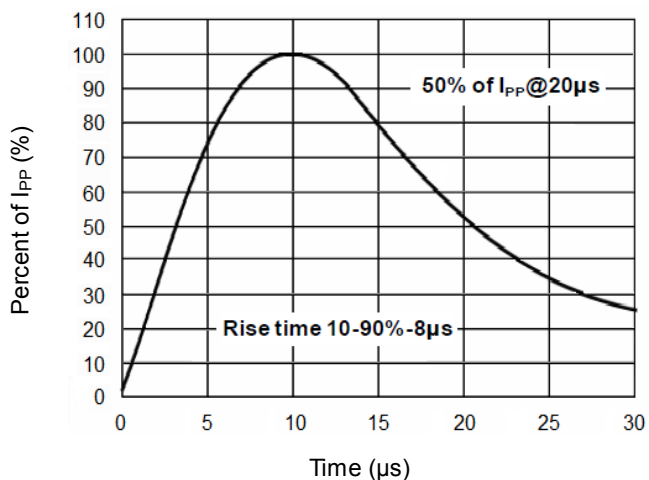
Typical Junction Capacitance



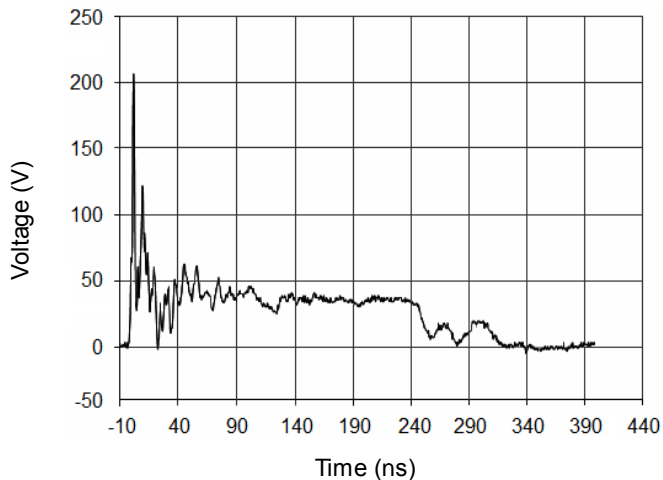
Typical Peak Clamping Voltage



Pulse Waveform



ESD Clamping (+8KV Contact per IEC61000-4-2)



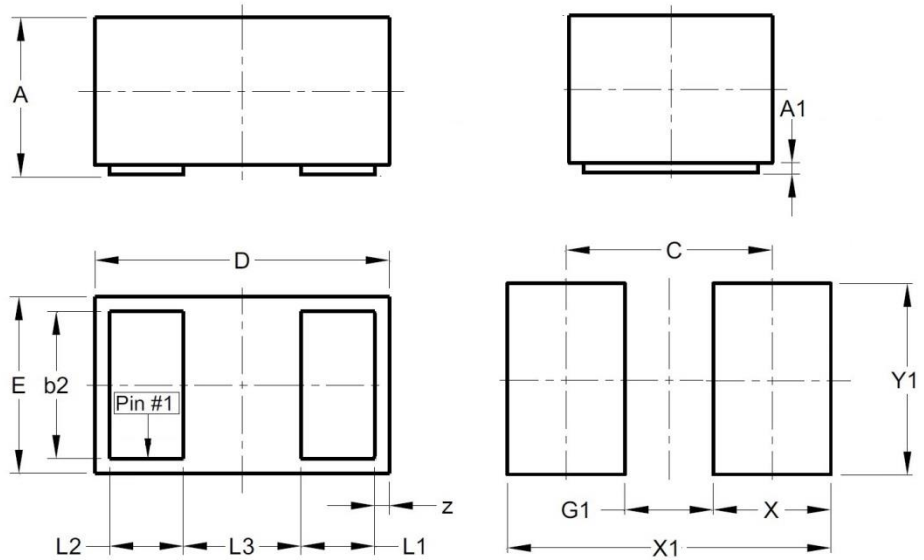
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DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.45	0.55
A1	-	0.05
b2	0.45	0.55
D	0.95	1.05
E	0.55	0.65
z	0.10	0.10
L1	0.20	0.30
L2	0.20	0.30
L3	0.40	0.40
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.