

Features

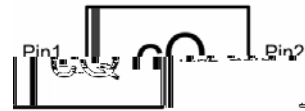
- Ultra small package
- Stand-off voltage: 12V Max
- Transient protection for each line according to
 - IEC61000-4-2(ESD): $\pm 30\text{kV}$ (contact)
 - IEC61000-4-4 (EFT): 80A (5/50ns)
 - IEC61000-4-5(surge): 25A (8/20 μs)
- Low leakage current
- Low clamping voltage
- RoHS Compliant

Applications

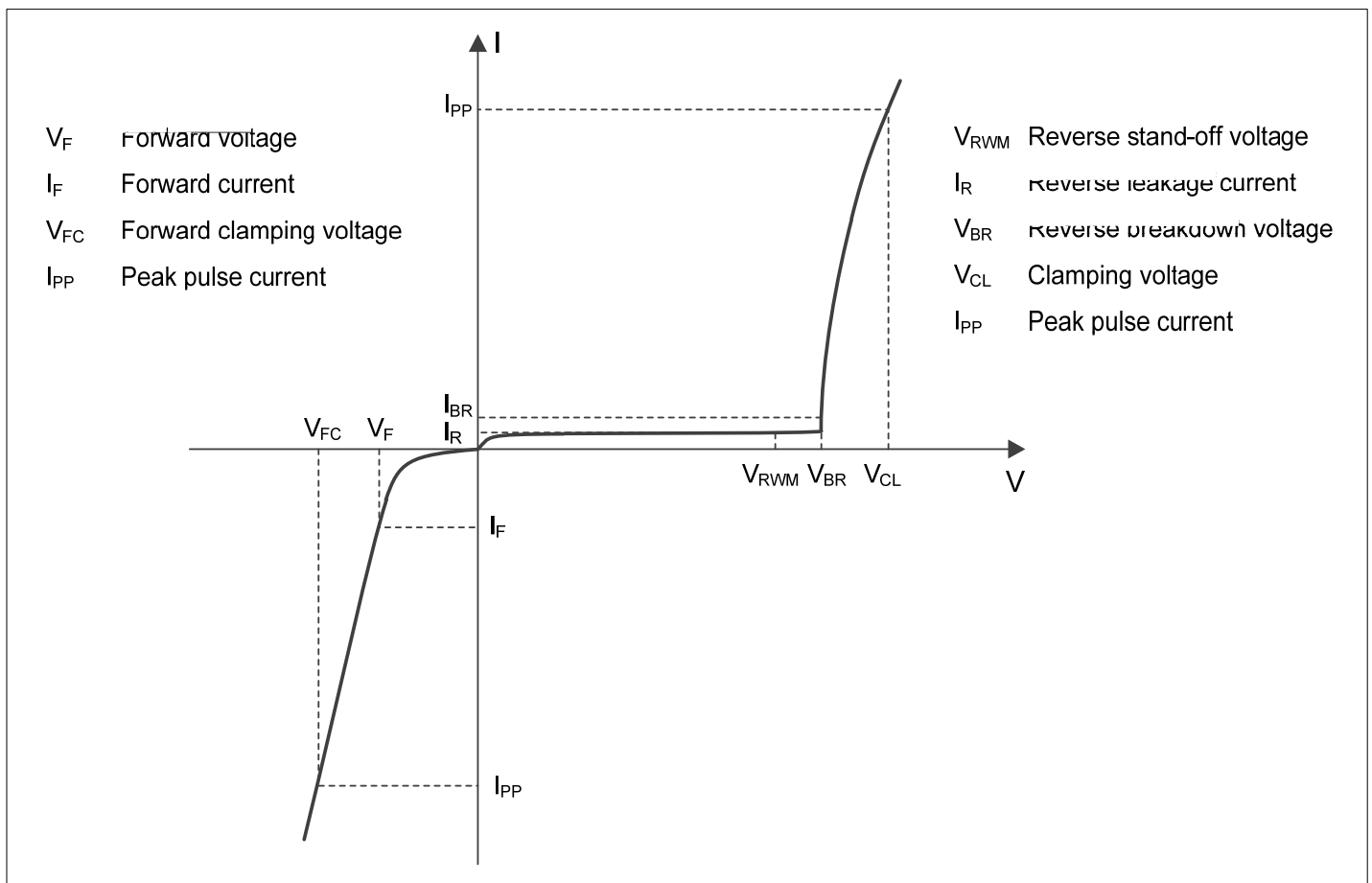
- Power supply protection
- Power management

Mechanical Characteristics

- Package: DFN1006-2L
- Case Material: "Green" Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Marking Information: See Below



Definitions of electrical characteristics





ESD12VLA

Absolute Maximum Ratings (Ta=25°C unless otherwise specified)

PARAMETER	SYMBOL	Rating	UNIT
Peak pulse power ($t_p = 8/20\mu s$)	P_{pk}	650	W
Peak pulse current ($t_p = 8/20\mu s$)	I_{PP}	25	A
ESD according to IEC61000-4-2 air discharge	V_{ESD}	± 30	KV
ESD according to IEC61000-4-2 contact discharge		± 30	KV
Junction temperature	T_J	125	°C
Operating temperature	T_{OP}	-40~85	°C
Storage temperature	T_{STG}	-55~150	°C

Electrical Characteristics (Ta=25 Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse maximum working voltage	V_{RWM}	V				12
Reverse leakage current	I_R	nA	$V_{RWM} = 12V$			100
Reverse breakdown voltage	V_{BR}	V	$I_{BR} = 1mA$	13	14	17
Forward voltage	V_F	V	$I_F = 20mA$	0.45		1.25
Clamping voltage ¹⁾	V_{CL}	V	$I_{PP} = 16A, t_p = 100ns$			

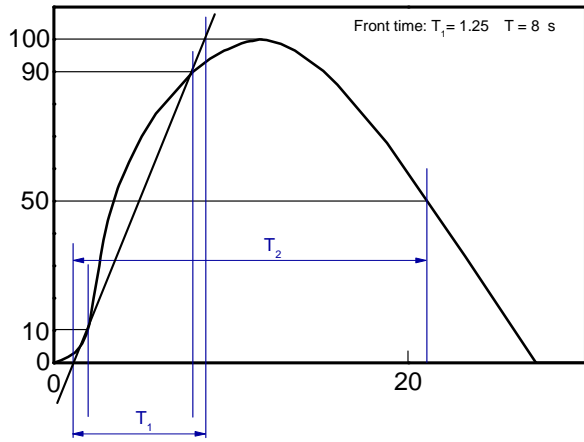


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Typical Performance Characteristics (Ta=25 unless otherwise Specified)

8/20 μ s waveform per IEC61000 4 5

Contact discharge current waveform per IEC61000 4 2



Clamping voltage vs. Peak pulse current

Capacitance vs. Reverse voltage

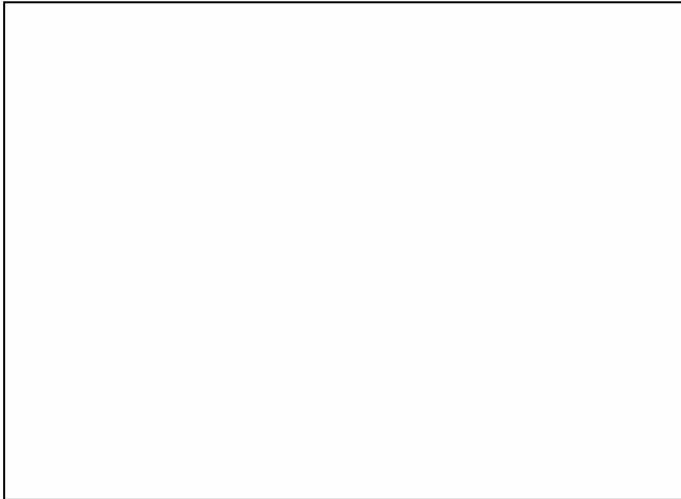
Non repetitive peak pulse power vs. Pulse time

Power derating vs. Ambient temperature



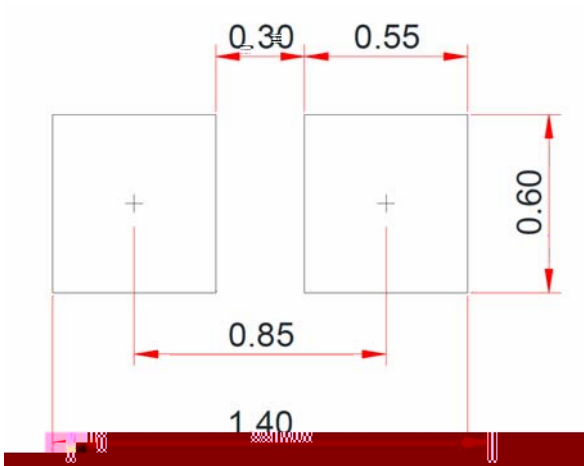
ESD12VLA

Outline Dimensions



Symbol	min (mm)	Max (mm)
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Recommend land pattern (Unit:mm)





ESD12VLA

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