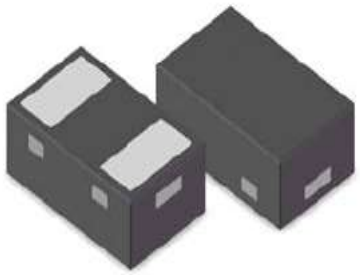
ESD1006NC15VB

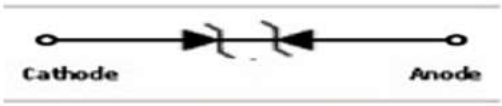
ESD1006NC15VB
Transient Voltage Suppressors ESD Protection Diode

General description
Silicon Protection Diode in a DFN1006 Package.

FEATURES
- 300 Watt peak pulse power (t/p=8/20)
- Capacitance Typ. 25 pF
- Bidirectional configurations
- Low Leakage Current
- Low clamping voltage
- Protection one data line / Power Line to :
- IEC 61000-4-2 ±20Kv Contact ±20Kv air.
- IEC 61000-4-4 EFT 40A(5/50nS)
- IEC 61000-4-5 Lightning 10A(8/20uS)
- RoHS Compliant
- Green EMC
- Matte Tin(Sn) Lead Finish



DFN1006 Package



ELECTRICAL SYMBOL

Absolute Maximum Ratings (T_A = 25°C unless otherwise noted)

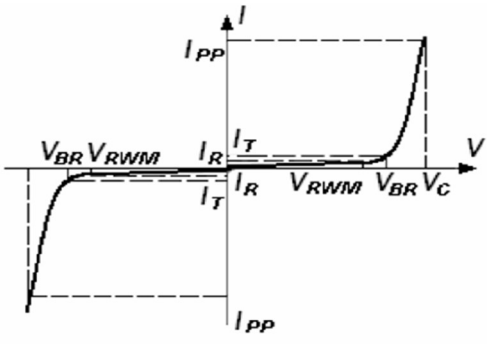
Symbol	Parameter	Value	Units
Ppp	Peak pulse power	300	W
T_L	Max Lead Solder Temperature range (10 Second Duration)	260	°C
T_{stg}	Storage Temperature Range	-55 to +150	°C
T_J	Junction Temperature	-55 to +125	°C
ESD	IEC61000-4-2 Air Discharge Contact Discharge	±20 ±20	KV
EFT	IEC61000-4-4	40	A
Lightning	IEC61000-4-5	10	A

Device Marking:

Device Type	Marking	Shipping
ESD1006NC15VB	LB	10,000/Reel

Electrical Parameter

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T



Electrical Characteristics (T_A = 25°C unless otherwise noted)

Symbol	Parameter	Test Condition	Min	Typ	Max	Unit
V_{BR}	Reverse Breakdown Voltage	I_T=1mA	16.7	--	--	Volts
V_{RWM}	Reverse Stand-off Voltage		--	--	15	Volts
I_R	Reverse Leakage Current	V_R=15V	--	--	0.5	uA
Vc	Clamping Voltage(IEC 61000-4-5)	Ipp=10A	--	--	32	Volts
Cj	Junction Capacitance	V_R=0V, f= 1MHz	--	25	--	pF

Typical Characteristics (T_{amb} = 25 °C unless otherwise specified)

Fig.1 Peak Pulse Power Rating Curve

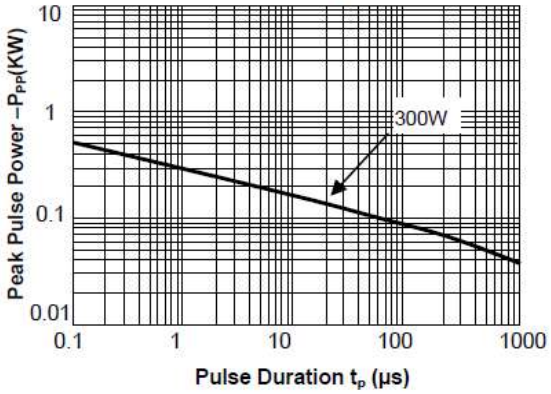


Fig.2 Pulse Derating Curve

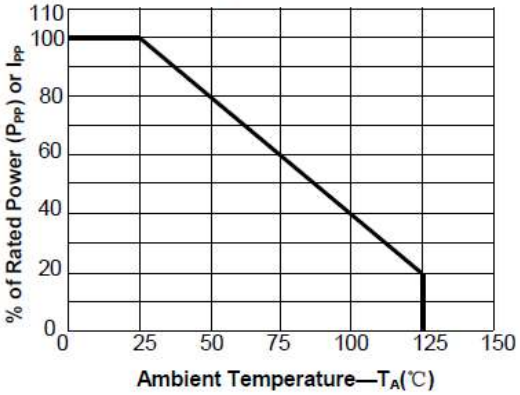


Fig.3 Pulse Waveform-8/20μs

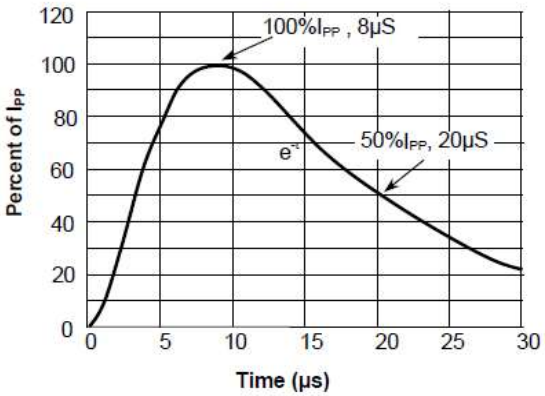
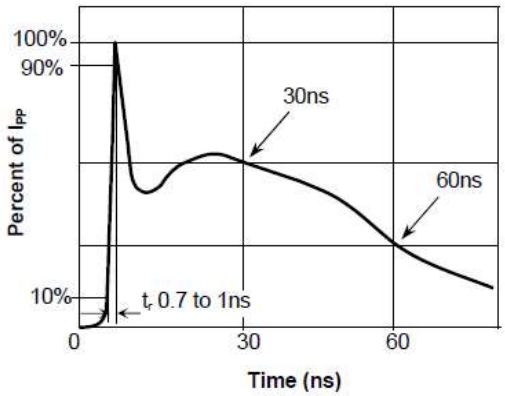
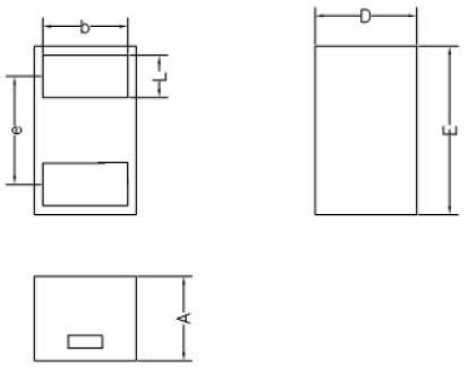


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



DFN1006 Package Outline



Symbol	Dimensions in millimeters		
	Min	Nom	Max
D	0.55	0.60	0.65
E	0.95	1.00	1.05
b	0.45	0.50	0.55
L	0.20	0.25	0.30
e	0.64 BSC		
A	0.45	0.50	0.55

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