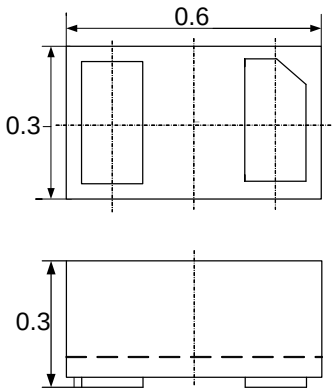
LM-PESD15VV1BSF

1-Line Bi-directional TVS Diode

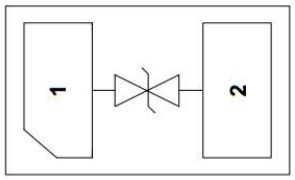
Features

- Ultra low leakage: nA level
- Low operating voltage: 15V
- Low clamping voltage
- 2-pin leadless package
- Complies with following standards:
- – IEC 61000-4-2 (ESD) immunity test
  Air discharge: ±30kV
  Contact discharge: ±30kV
  –IEC61000-4-5 (Lightning) 5A (8/20μs)
- RoHS Compliant

Dimensions DFN0603



Pin Configuration



Applications

- Cell Phone Handsets andAccessories
- Microprocessor based equipment
- Personal DigitalAssistants(PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports
- Peripherals

Mechanical Characteristics

- Package: DFN0603
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:10,000pcs
- Reel Size:7 inch
- Device Marking: K

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

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	130	W
ESD per IEC 61000−4−2 (Air)	V_{ESD}	± 30	kV
ESD per IEC 61000−4−2 (Contact)		± 30	
Operating Temperature Range	T_J	-55 to +125	℃
Storage Temperature Range	T_{STJ}	-55 to +150	℃

Electrical Characteristics(TA=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				15	V
Breakdown Voltage	V_{BR}	I_T = 1mA	16.7		22	V
Reverse Leakage Current	I_R	V_{RWM} = 15V			0.5	μA
Clamping Voltage	V_C	I_{PP} = 5A (8 x 20 μs pulse)			26	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		5	6.5	pF

Electrical Parameters(TA=25°C unless otherwise specified)

V_{RWM} ·····Reverse Working Voltage Max.

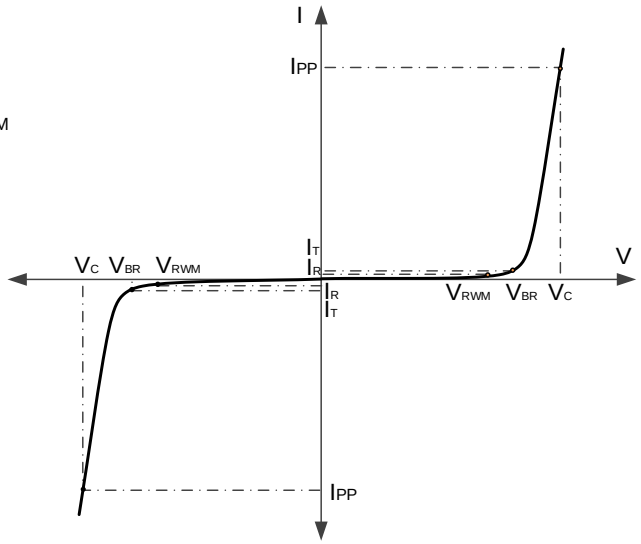
I_R ····· Maximum Reverse Leakage Current @ V_{RWM}

I_T ····· Test Current

V_{BR} ····· Reverse Breakdown Voltage

I_{PP} ····· Maximum Reverse Peak Pulse Current

V_C ····· Clamping Voltage @ I_{PP}



Typical Performance Characteristics(TA=25°C unless otherwise specified)

Figure1: 8/20μs pulse wavefrom according to IEC61000-4-5

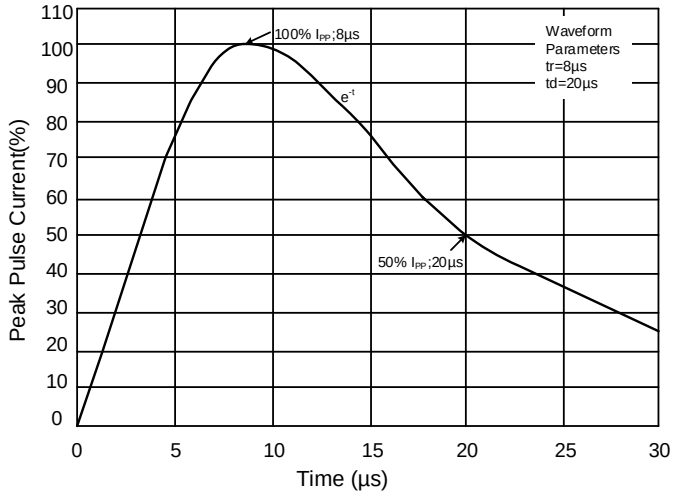


Figure2: ESD pulse wavefrom according to IEC 61000-4-2

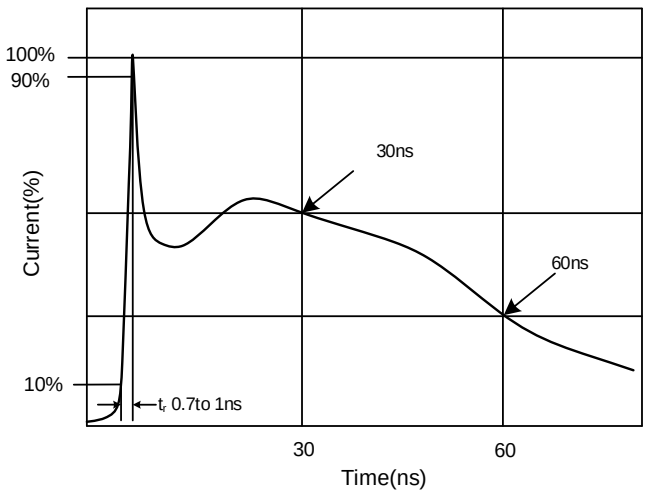


Figure3: Power Derating Curve

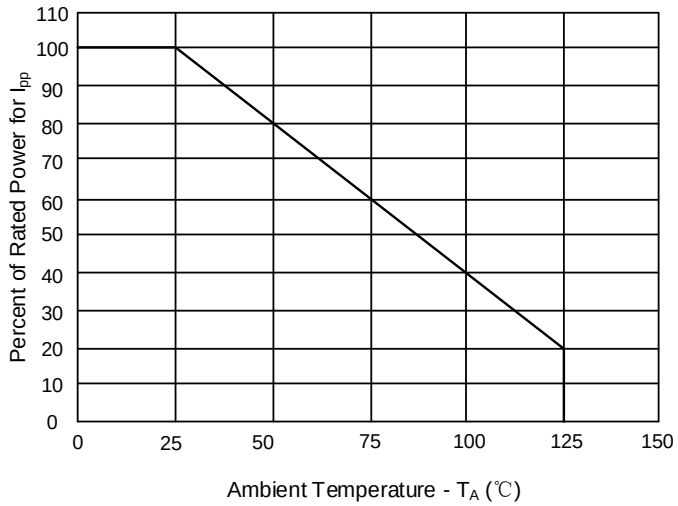
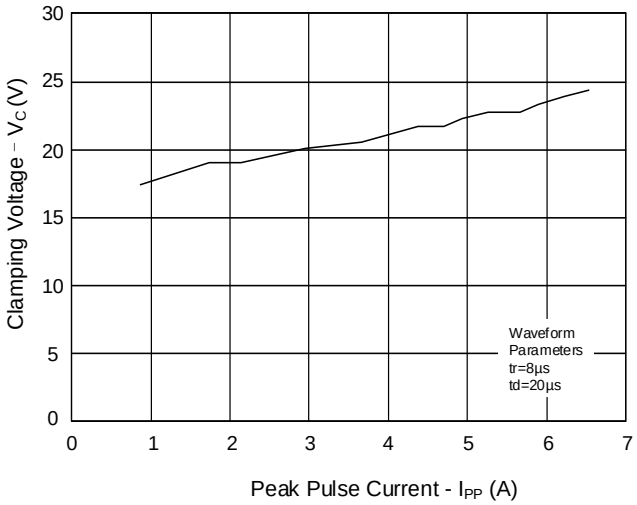
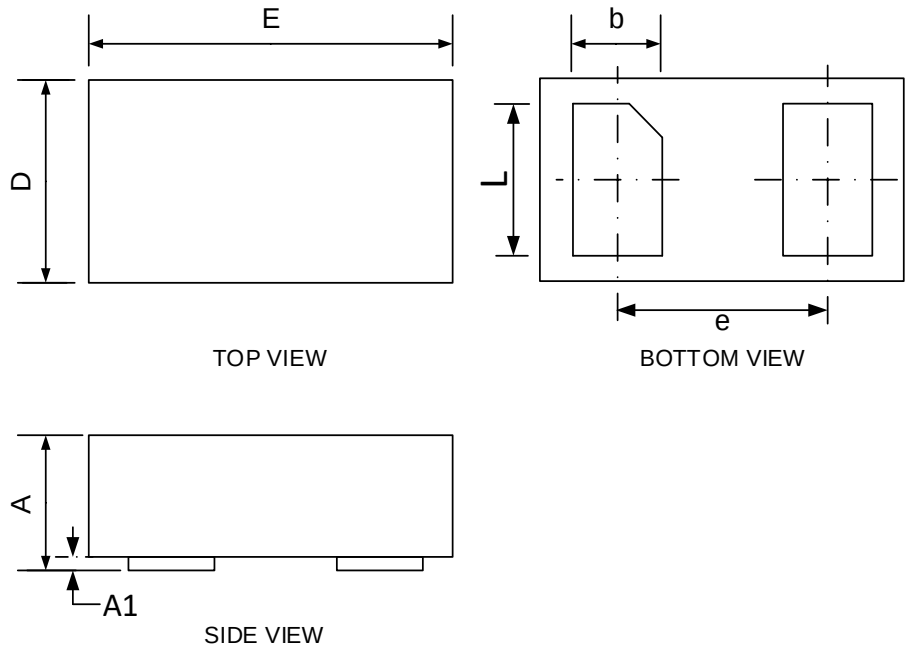


Figure 4: Clamping Voltage vs.Ipp

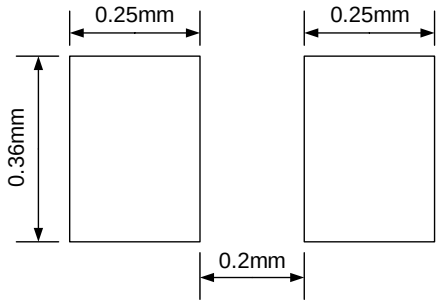


DFN0603 Package Outline Drawing



COMMON DIMENSION (mm)			
PKG	DFN0603		
REF.	MIN.	NOM.	MAX.
A	0.28	0.30	0.34
A1	0.00	0.02	0.05
b	0.14		0.24
L	0.21	0.23	0.265
e	0.40BSC		
D	0.25	0.30	0.35
E	0.55	0.60	0.65

Suggested Land Pattern



* This land pattern is for reference purposes only

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