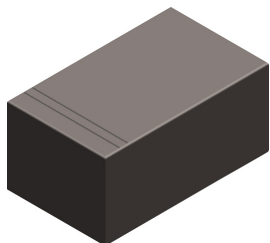


Surface Mount TVS Diode multicomp^{PRO}

RoHS
Compliant



Features

- ESD / transient protection of high speed data lines
- IEC 61000-4-2 (ESD): $\pm 20\text{kV}$ (air), $\pm 15\text{kV}$ (contact)
- Low reverse stand-off voltage: 3.3V
- Very low leakage current
- Low diode capacitance
- ESD protection up to 10kV ; IEC61000-4-2

Mechanical Data

- Case: DFN1006-2
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte Tin-Plated Leads, Solderability-per MIL-STD-202, Method 208

Maximum Ratings (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Value	Units
IEC 61000-4-2; ESD (Air) *1	$V_{\text{ESD-A}}$	± 20	kV
IEC 61000-4-2; ESD (Contact) *1	$V_{\text{ESD-C}}$	± 15	
JESD22-A114-B; ESD (Human Body) *1	$V_{\text{ESD-HB}}$	± 10	
JESD22-A114-B; ESD (Machine) *1	$V_{\text{ESD-M}}$	± 0.4	
Peak Pulse Power ($t_p = 8/20\mu\text{s}$) *2	P_{PP}	60	W
Peak Pulse Current ($t_p = 8/20\mu\text{s}$) *2	I_{PP}	4	A

Thermal Characteristics

Parameter	Symbol	Value	Units
Junction Temperature	T_J	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	T_{STG}		

Electrical Characteristics (@ $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}		-	-	3.3	V
Reverse Breakdown Voltage	$V_{\text{(BR)}}$	$I_T = 1\text{mA}$	4.2	-	-	V
Reverse Leakage Current	I_{R}	$V_{\text{RWM}} = 3.3\text{V}$	-	-	1	μA
Clamping Voltage *2	V_{C}	$I_{\text{PP}} = 1\text{A}$, $t_p = 8/20\mu\text{s}$ $I_{\text{PP}} = 4\text{A}$, $t_p = 8/20\mu\text{s}$	-	-	10 15	V
Junction Capacitance	C_{J}	$V_{\text{R}} = 0\text{V}$, $f = 1\text{MHz}$	-	0.6	1.0	pF

Notes:

1. Device stressed with ten non-repetitive ESD pulses, measured from pin 1 to pin 2
2. Non-repetitive current pulse $8/20\mu\text{s}$ exponential decay waveform according to IEC61000-4-5

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Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

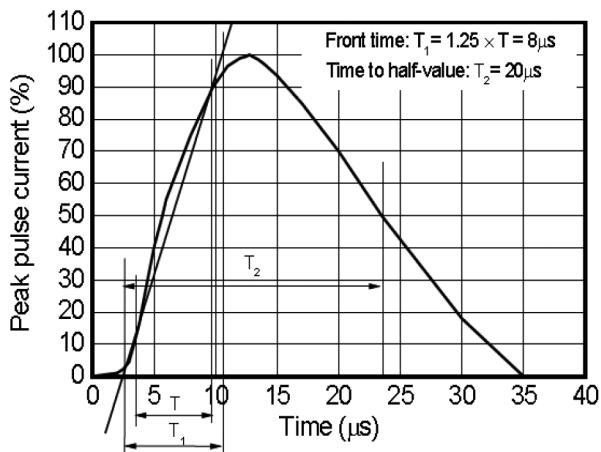


Fig 1 8/20µs waveform per IEC61000-4-5

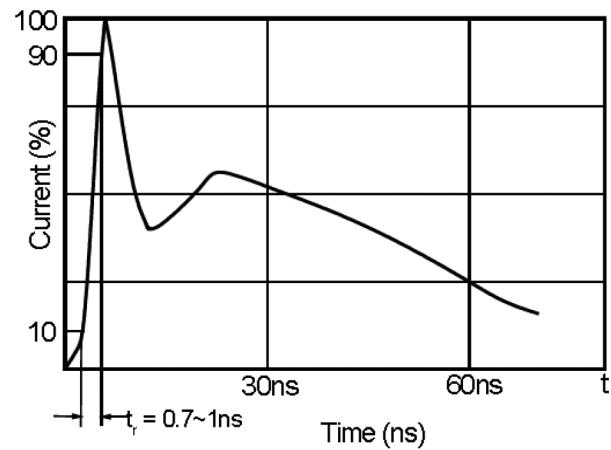


Fig 2 ESD pulse waveform according to IEC61000-4-2

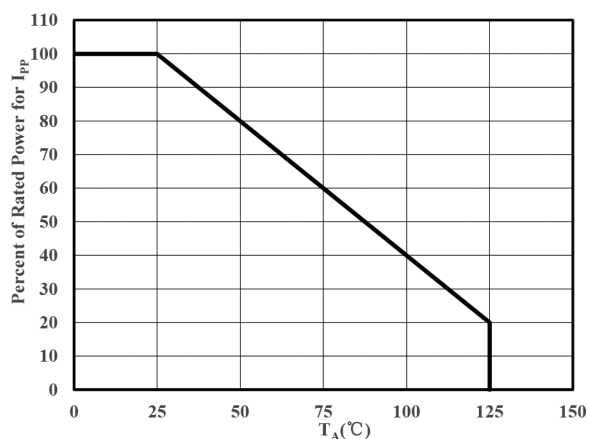
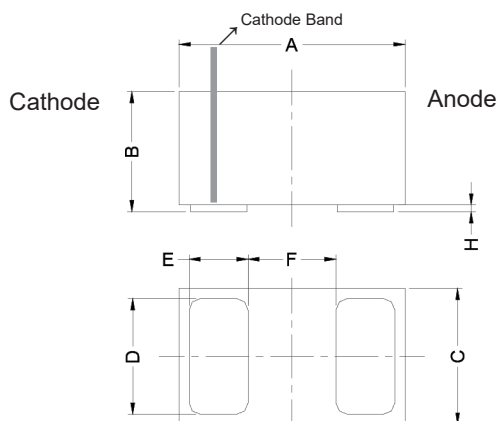


Fig 3 Power Derating Curve

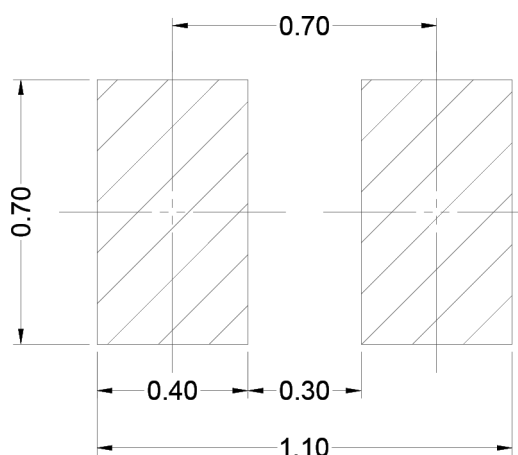
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Package Outline Dimensions



DFN1006-2			
Dimension	Min.	Typ.	Max.
A	0.95	1.00	1.075
B	0.47	0.50	0.53
C	0.55	0.60	0.675
D	0.45	0.50	0.55
E	0.20	0.25	0.30
F	-	0.40	-
H	0	0.03	0.05

Mounting Pad Layout



Dimensions : Millimetres

Part Number Table

Description	Part Number
TVS Diode, Uni-directional, 60W, 3.3V, SMD, DFN1006-2	MP009036

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