



Micro Commercial Components



Micro Commercial Components
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ESDH12VD1

12Volts
ESD Protection
Devices

Features

- Halogen free available upon request by adding suffix "-HF"
Uni-directional ESD protection of one line
Low reverse clamping voltage
Low leakage current
Fast response ,response time less than 1ns.
Fast response time
Epoxy meets UL 94 V-0 flammability rating
Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction &StorageTemperature: -55°C to +150°C

Table with 5 columns: Parameter, Symbol, Limits, unit. Rows include IEC61000-4-2(ESD) Air Contact, ESD Voltage Per Human Body Model Machine Model, Peak Pulse Power, and Peak Pulse Current.

- (1).Device stressed with ten non-repetitive ESD pulses.
(2).Non-repetitive current pulse 8/20µs exponential decay waveform according to IEC61000-4-5.

Marking:



SOD-123

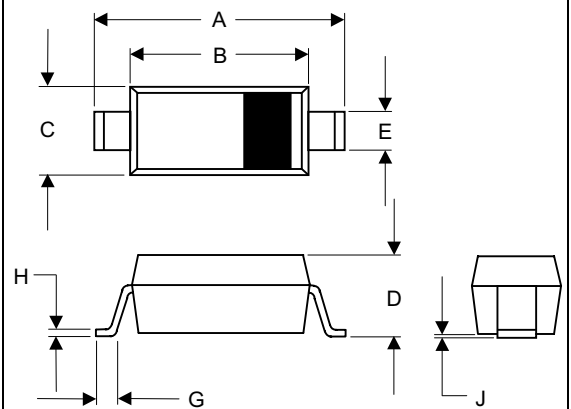
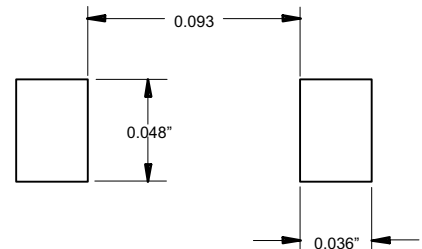


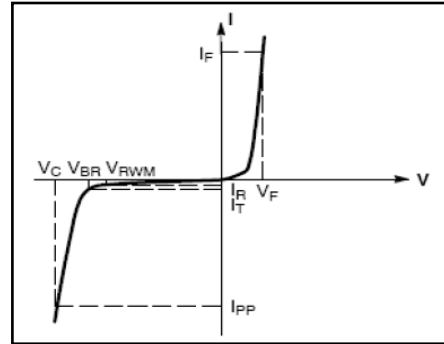
Table with 5 columns: DIM, INCHES (MIN, MAX), MM (MIN, MAX), NOTE. Rows A through J.

SUGGESTED SOLDER PAD LAYOUT



ELECTRICAL PARAMETER

Symbol	Parameter
V_C	Clamping Voltage @ I_{PP}
I_{PP}	Peak Pulse Current
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_R	Reverse Leakage Current @ V_{RWM}
V_{RWM}	Reverse Standoff Voltage
V_F	Forward Voltage @ I_F
I_F	Forward Current



V-I characteristics for a uni-directional TVS

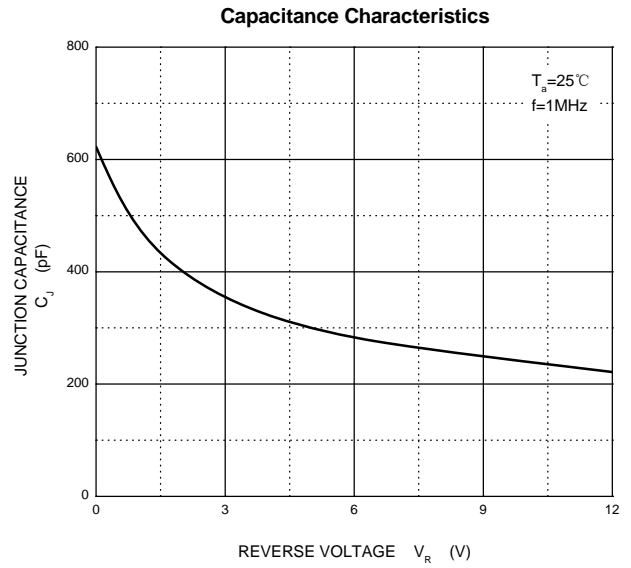
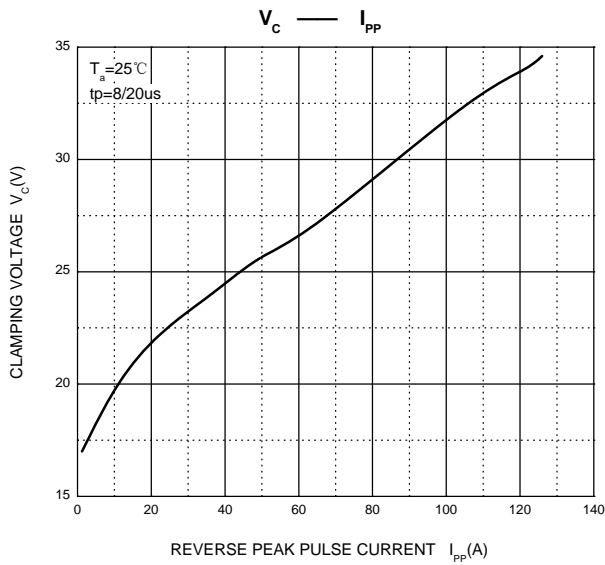
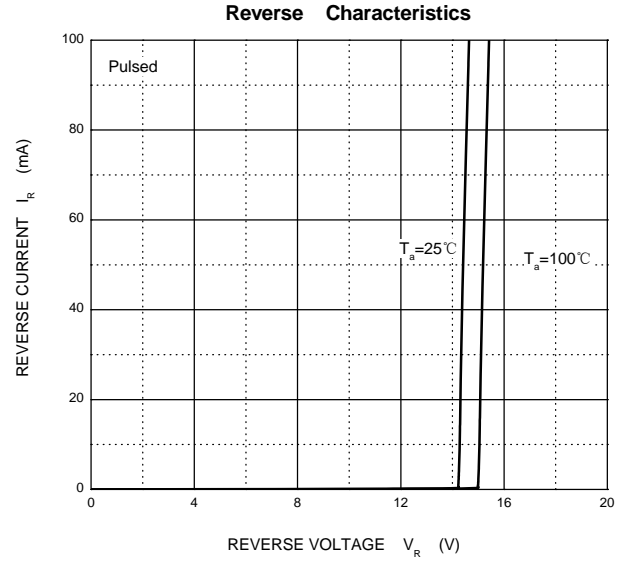
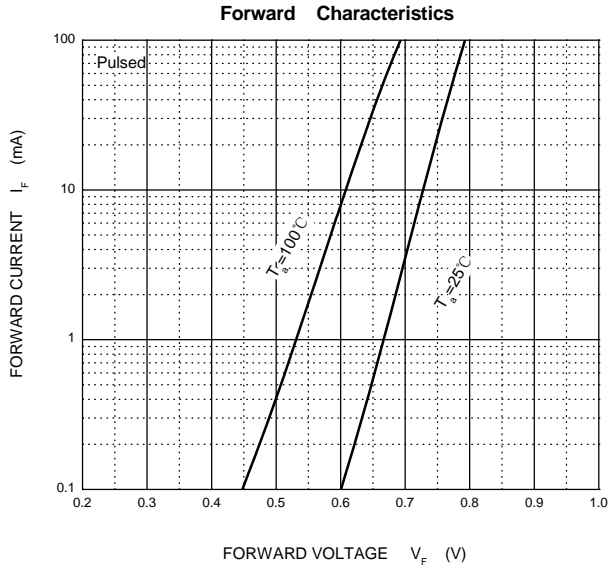
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Reverse stand off voltage	$V_{RWM}^{(1)}$				12	V
Reverse leakage current	I_R	$V_{RWM}=12\text{V}$			1	μA
Breakdown voltage	$V_{(BR)}$	$I_T=1\text{mA}$	13		16	V
Clamping voltage	$V_C^{(2)}$	$I_{PP}=120\text{A}$			35	V
Forward voltage	V_F	$I_F=10\text{mA}$			0.9	V
Junction capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$		620		pF

(1). Other voltages available upon request.

(2). Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5

TYPICAL CHARACTERISTICS





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 3Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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