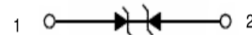


Features

Bi-Directional Transient Voltage Suppressor
Low Capacitance and Low Leakage
Response Time is Typically < 1 ns
IEC61000-4-2 Level 4 ESD Protection
ROHS Compliant
UL-94 V-0 / Green EMC
Matte Tin Lead finish (Pb-Free)



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Schematic Diagram

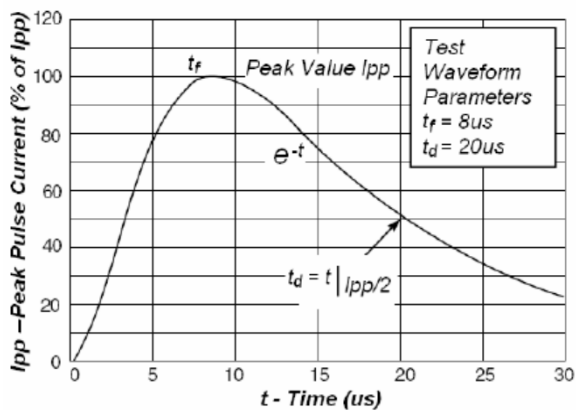
Absolute Maximum Rating

Symbol	Parameter	Value	Units
VESD-Air	ESD Voltage IEC61000-4-2 Air	±25	kV
VESD-Contact	ESD Voltage IEC61000-4-2 Contact	±20	kV
PD	Total Power Dissipation on FR-5 Board	200	mW
T _J	Junction Temperature	-55 to 150	°C
T _{STG}	Storage Temperature	-55 to 150	°C
T _L	Lead Solder Temperature – Maximum (10 Second Duration)	260	°C

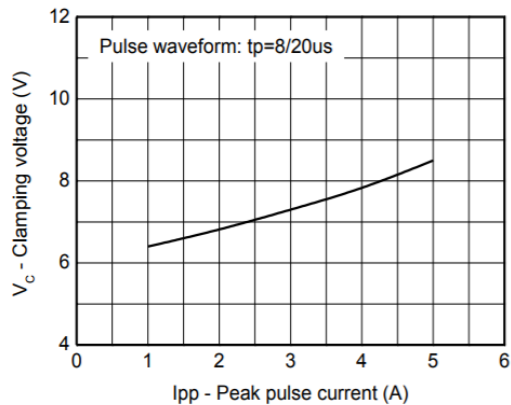
Electrical Characteristics (TA=25°C unless otherwise specified)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V_{RWM}	Reverse Working Peak Voltage				5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T = 1\text{mA}$	5.6		8.0	V
I_{R1}	Reverse Current	$V_{RWM} = 5\text{V}$			0.5	μA
I_{R2}	Reverse Current	$V_R = 3.5\text{V}$			0.3	μA
V_C	Clamping Voltage	$I_{pp} = 1\text{A}$			9.8	V
V_C	Clamping Voltage	$I_{pp} = 5.5\text{A}$			12.5	V
C	Capacitance	$V_R = 0\text{V}, f = 1\text{MHz}$			15	pF

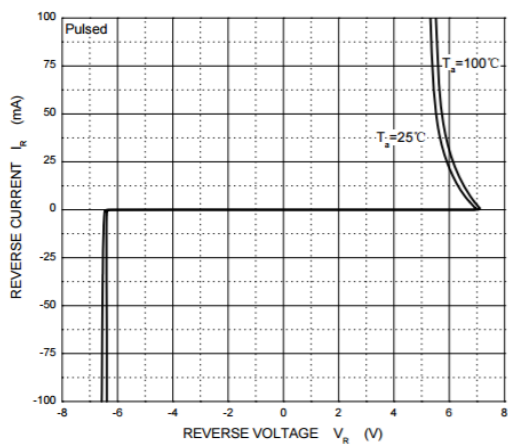
RATING AND CHARACTERISTIC CURVES



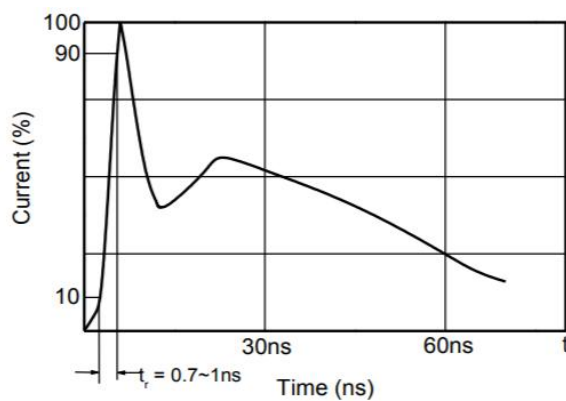
Pulse Waveform



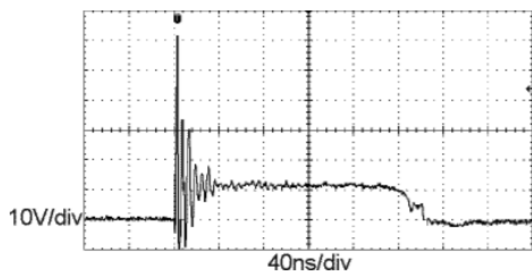
Clamping voltage vs. Peak pulse current



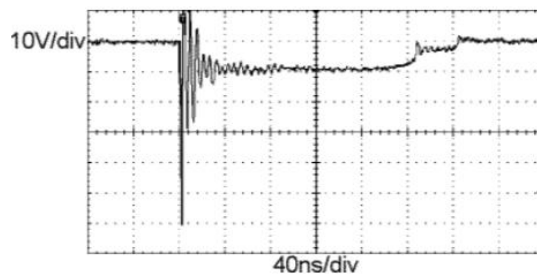
Reverse Characteristics



Contact discharge current waveform per IEC61000-4-2



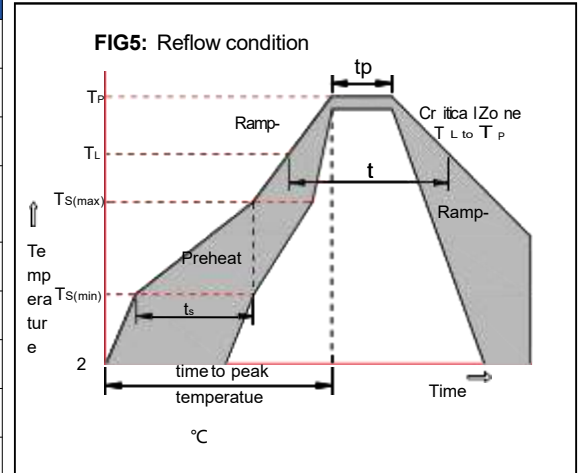
ESD clamping
(+8kV contact discharge per IEC61000-4-2)



ESD clamping
(-8kV contact discharge per IEC61000-4-2)

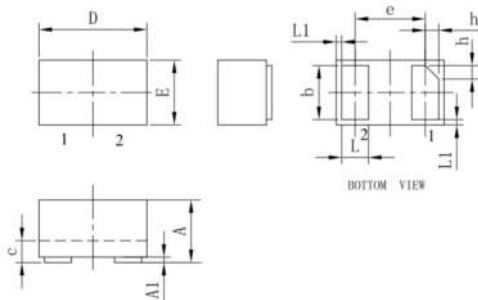
Soldering parameters

Reflow Condition		Pb-Free assembly (see as below)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150 °C
	-Temperature Max($T_{s(max)}$)	+200 °C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3 °C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3 °C/sec. Max
Reflow	-Temperature(T_L)(Liquid us)	+217 °C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5) °C
Time within 5 °C of actual Peak Temp (t_P)		30 secs. Max
Ramp-down Rate		6 °C/sec. Max
Time 25 °C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260 °C



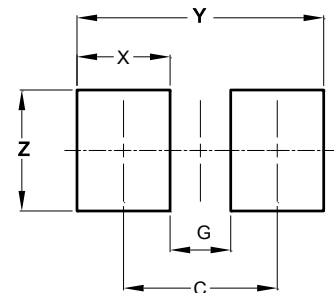
Package Dimensions & Suggested Pad Layout

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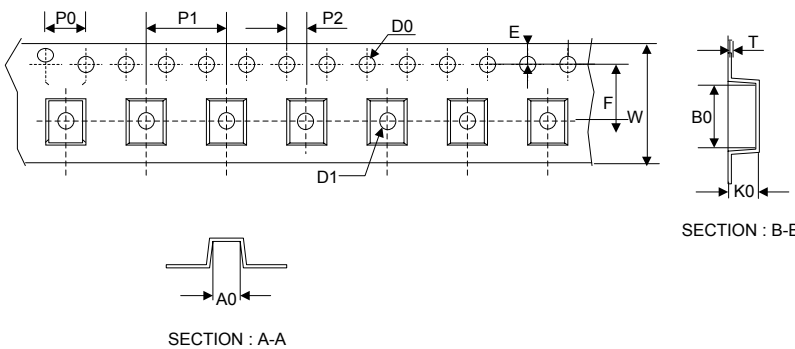
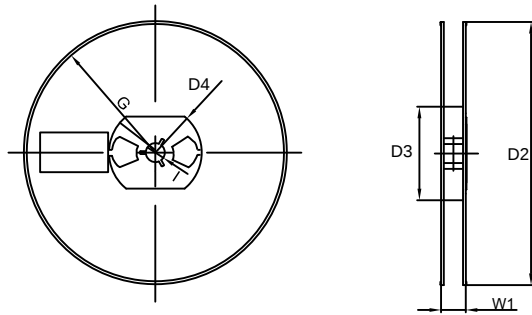
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	Millimeters			Inches		
	Min. (mm)	Typ. (mm)	Max. (mm)	Min. (mm)	Typ. (mm)	Max. (mm)
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.59BSC			0.026BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.25	0.30	0.35	0.010	0.012	0.013
L1	0.05REF			0.002REF		
h	0.07	0.12	0.17	0.003	0.005	0.007



Dimensions	Value (in mm)
C	0.70
G	0.30
X	0.40
Y	1.10
Z	0.65

Tape & reel specification

Tape		Symbol	Dimension (mm)
		P0	4.00±0.20
		P1	2.00±0.20
		P2	1.55±0.20
		D0	1.55±0.20
		D1	0.40±0.20
		E	1.55±0.25
		F	3.60±0.20
		W	8.00±0.20
		A0	1.00±0.20
		B0	1.40±0.20
		K0	0.75±0.20
		T	0.20±0.20
		D2	177.0±5.0
		D3	55Min.
		D4	R24.6±2.0
7" Reel		G	R82.0±2.0
		I	13.0±2.0
		W1	10.20±3.0
		Quantity: 3000PCS	