Features

- AEC-Q101 Qualified With Wettable Flank
- Protects One Data or Power Line
- Ultra Low Leakage
- Ultra Low Capacitance
- Ultra Low Clamping Voltage
- Moisture Sensitivity Level 1
- Halogen Free. “Green” Device (Note 1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

ESD Protection Device

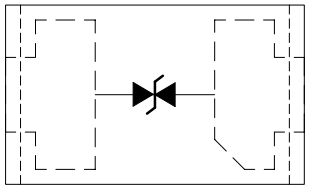
Maximum Ratings

IEC61000-4-2 (ESD)	Air	±15KV
	Contact	±8KV
Peak Pulse Current (8/20μs)	I_{PP}	3A
Peak Pulse Power (8/20μs)(Note2)	P_{PK}	50W
Operating Junction Temperature Range	T_J	-55°C to +150°C
Storage Temperature Range	T_{STG}	-55°C to +150°C

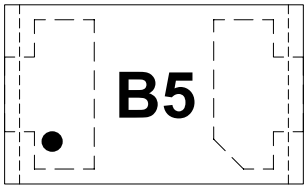
Note :

1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

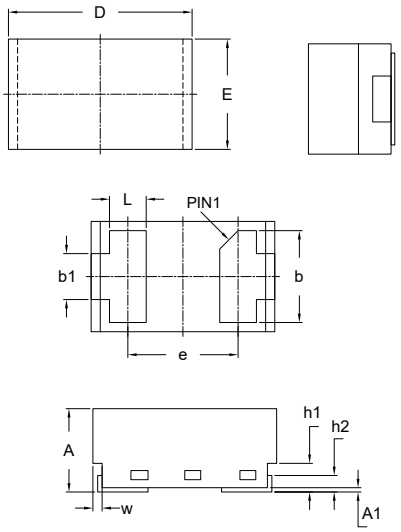
Internal Structure



Device Marking

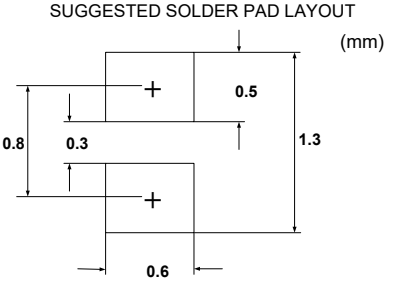


DFN1006-2L(SWF)

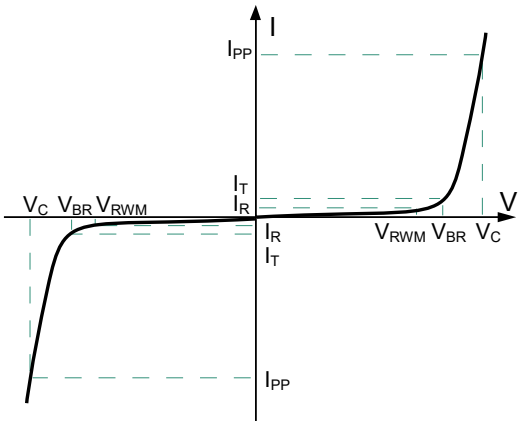


DIMENSIONS					
	INCH		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.016	0.022	0.400	0.550	
A1	0.000	0.002	0.000	0.050	
b	0.018	0.022	0.450	0.550	
b1	0.008	0.012	0.200	0.300	
D	0.037	0.041	0.950	1.050	
E	0.022	0.026	0.550	0.650	
e	0.024		0.600		TYP
L	0.006	0.010	0.150	0.250	
w	0.001	0.003	0.020	0.080	
h1	0.005	-	0.125	-	Cutting Depth
h2	0.004	-	0.100	-	Plating Height

SUGGESTED SOLDER PAD LAYOUT



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}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
C	Capacitance @V_R=0 and f =1MHz



Electrical Characteristics @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	I_T=1mA	6		8.5	V
Reverse Leakage Current	I_R	V_{RWM}=5V			0.2	μA
Clamping Voltage Note1	V_C	I_{PP}=1A, t_P=8/20μs			12	V
Clamping Voltage Note1	V_C	I_{PP}=3A, t_P=8/20μs			20	V
Junction Capacitance	C_J	V_R=0V, f=1MHz		0.25	0.3	pF
Dynamic Resistance Note2	R_{DYN}	TLP, t_P=100ns		0.38		Ω

Note :

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

2.TLP parameter: Z_0=50Ω, tp=100ns, tr=2ns, averaging window from 60ns to 80ns. R_{DYN} is calculated from 4A to 16A.

Curve Characteristics

Fig. 1 - 8 X 20μs Pulse Waveform

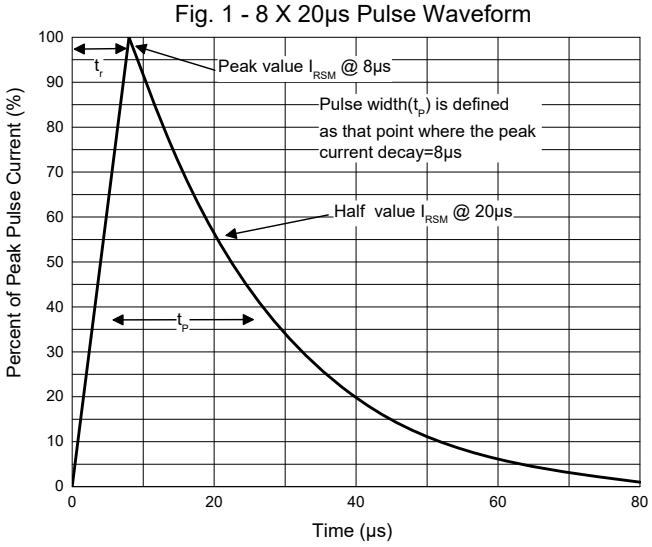


Fig. 2 - Pulse Derating Curve

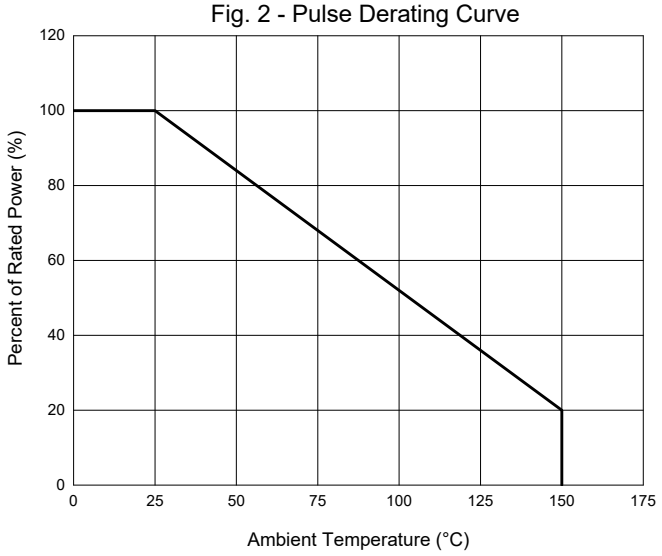


Fig. 3 - Capacitance Characteristics

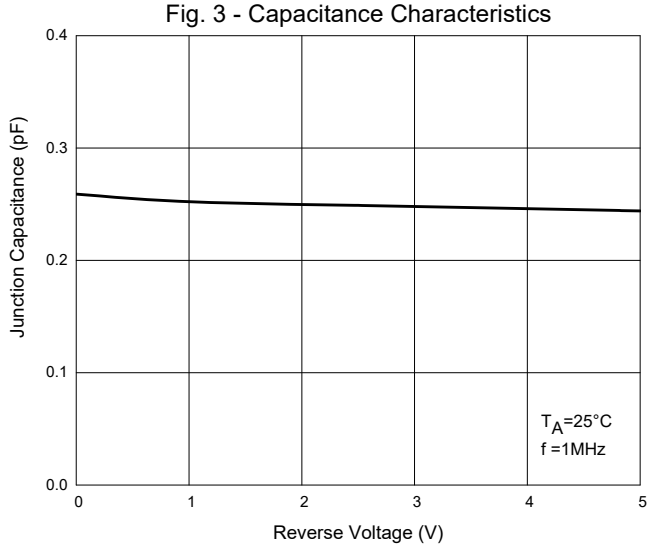


Fig. 4 - Clamping Voltage Characteristics

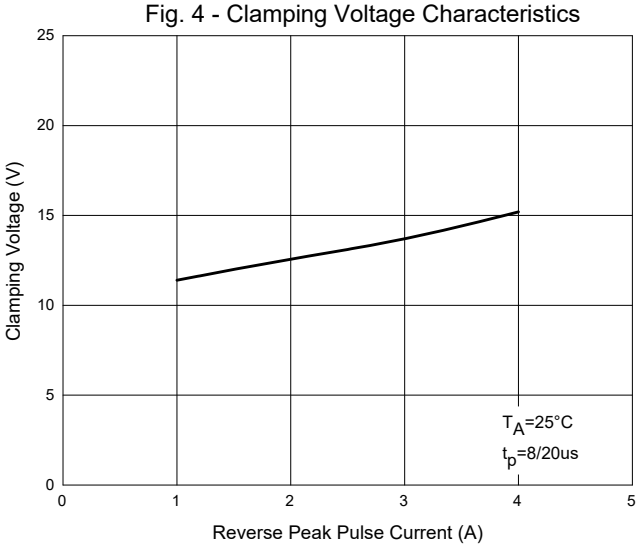
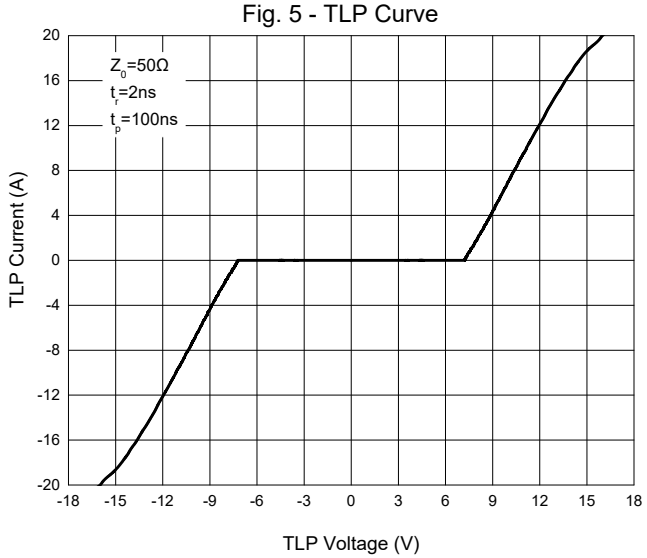


Fig. 5 - TLP Curve



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 10Kpcs/Reel

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