

**Features**

- AEC-Q101 Qualified
- Protects One Data or Power Line
- Ultra Low Leakage
- 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)

**Maximum Ratings**

IEC61000-4-2 (ESD)	Air	±30KV
	Contact	±30KV
Peak Pulse Current (8/20µs)	I <sub>PP</sub>	2.5A
Peak Pulse Power (8/20µs) <sup>(Note2)</sup>	P <sub>PK</sub>	180W
Operating Junction Temperature Range	T <sub>J</sub>	-55°C to +150°C
Storage Temperature Range	T <sub>STG</sub>	-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**

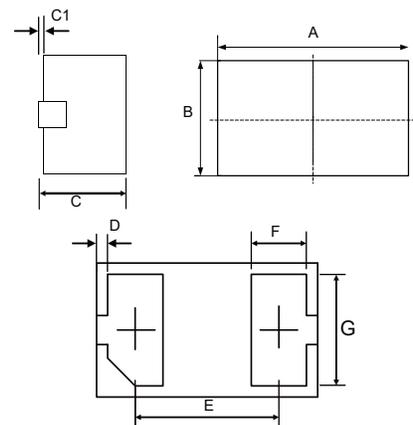


**Marking Code**



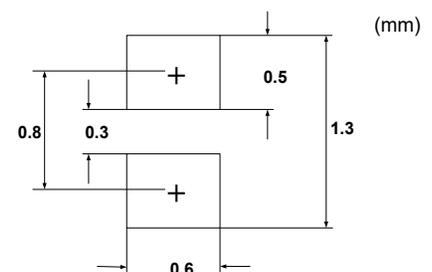
**ESD Protection Device**

**DFN1006-2L**

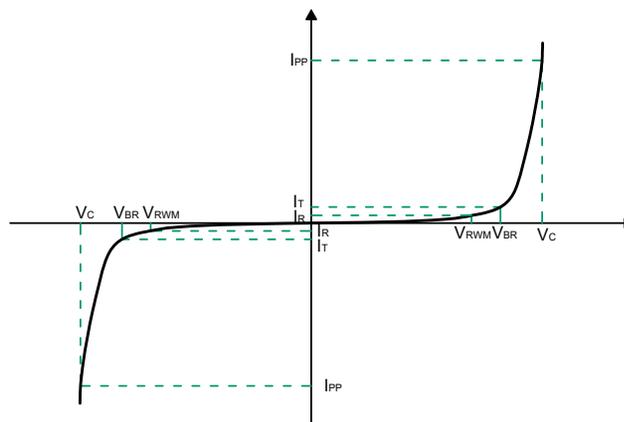


DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.037	0.041	0.95	1.05	
B	0.022	0.026	0.55	0.65	
C	0.016	0.022	0.40	0.50	
C1	-----	0.004	-----	0.05	
D	0.001	0.003	0.02	0.08	
E	0.026		0.65		TYP.
F	0.008	0.012	0.20	0.30	
G	0.018	0.022	0.45	0.55	

**SUGGESTED SOLDER PAD LAYOUT**



Symbol	Parameter
$V_{RWM}$	Peak Reverse Working Voltage
$I_R$	Reverse Leakage Current @ $V_{RWM}$
$V_{BR}$	Breakdown Voltage @ $I_T$
$I_T$	Test Current
$I_{PP}$	Maximum Reverse Peak Pulse Current
$V_C$	Clamping Voltage @ $I_{PP}$
$P_{PK}$	Peak Pulse Power
$C_J$	Junction Capacitance



**Electrical Characteristics @ 25°C (Unless Otherwise Specified)**

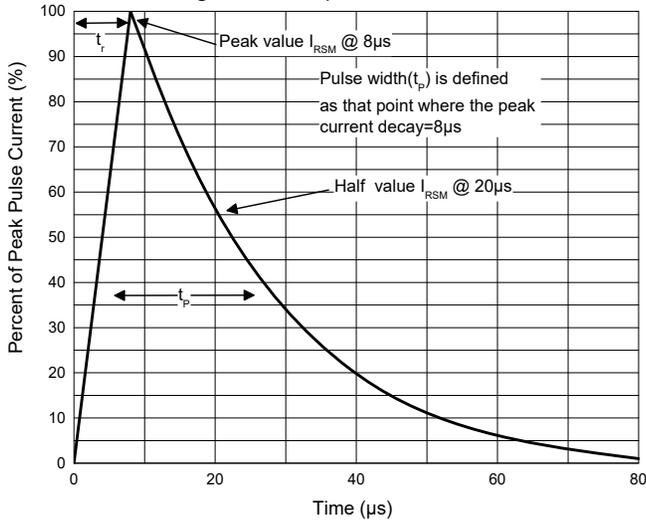
Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Working Voltage	$V_{RWM}$				27	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	31		38	V
Reverse Leakage Current	$I_R$	$V_{RWM}=27V$			0.5	$\mu A$
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=1A, t_p=8/20\mu s$		52	60	V
Clamping Voltage <sup>Note1</sup>	$V_C$	$I_{PP}=2.5A, t_p=8/20\mu s$		68	75	V
Junction Capacitance	$C_J$	$V_R=0V, f=1MHz$		6.5		pF

Note :

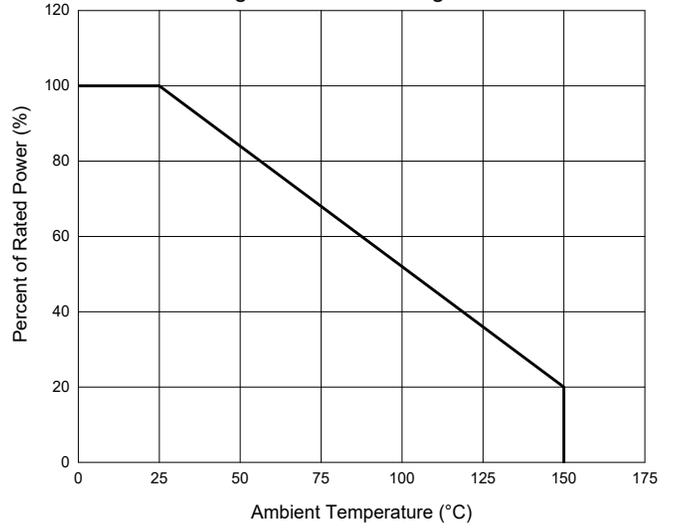
1.Non-repetitive current pulse 8/20 $\mu s$  exponential decay waveform according to IEC61000-4-5.

**Curve Characteristics**

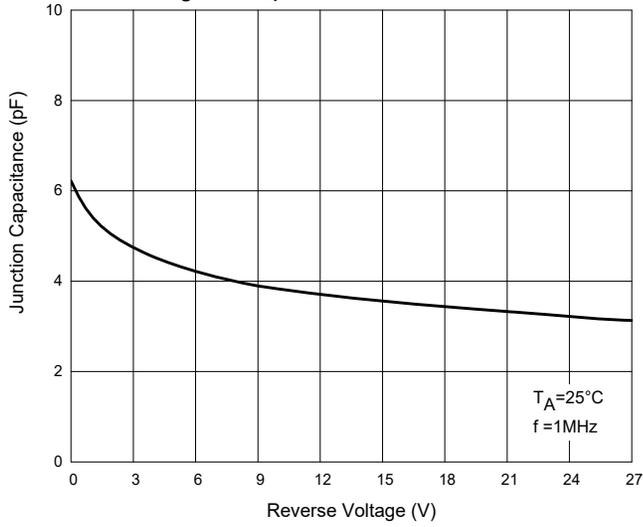
**Fig. 1 - 8 X 20µs Pulse Waveform**



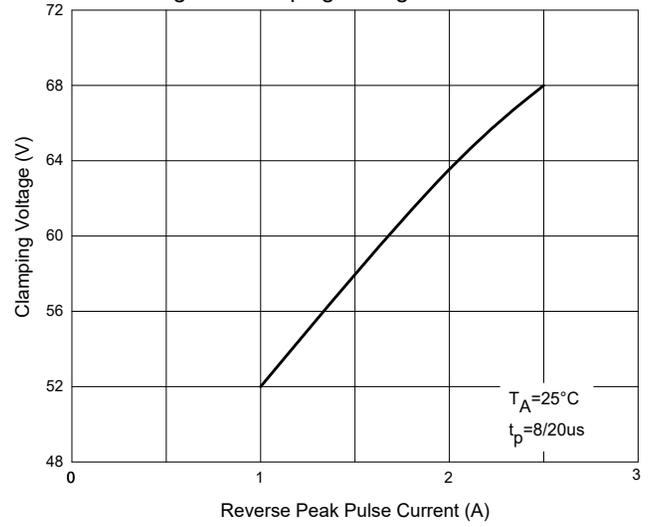
**Fig.2 - Pulse Derating Curve**



**Fig. 3 - Capacitance Characteristics**



**Fig. 4 - Clamping Voltage Characteristics**



## Ordering Information

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

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