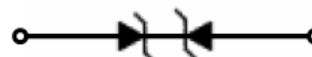


Transient Voltage Suppressors ESD Protection Diode



DFN1006-2L Package



Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
PD	Total Power Dissipation on FR-5 Broad	150	mW
T_L	Max Lead Solder Temperature range (10 Second Duration)	260	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_{opr}	Max operation Temperature Range	+125	$^\circ\text{C}$
ESD	IEC61000-4-2 Air Discharge	± 20	KV
	Contact Discharge	± 25	

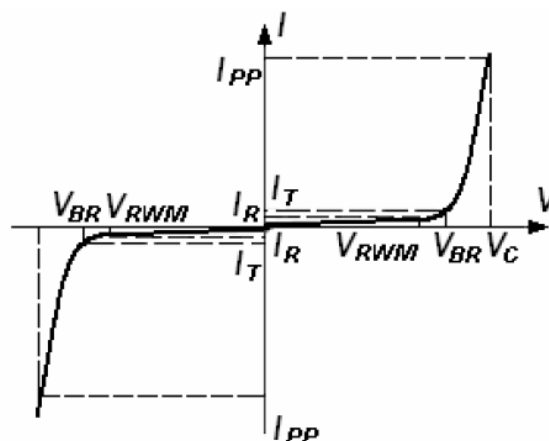
These ratings are limiting values above which the serviceability of the diode may be impaired.

Specification Features:

- § Capacitance Typ. 15pF
- § Small Body Outline Dimensions
- § Low Leakage Current
- § ESD Rating of Class 3 (>16kV) per Human Body Model
- § RoHS Compliant
- § Green EMC
- § Matte Tin(Sn) Lead Finish

Electrical Parameter

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}
I_T	Test Current
V_{BR}	Breakdown Voltage @ I_T



Electrical Characteristics (T_A = 25°C unless otherwise noted)

Device Type	V _{RWM} (Volts)	I _R @ V _{RWM} (μA)	V _{BR} @ I _T (Note 1) (Volts)		I _T (mA)	I _{PP+} (A)	V _C @ Max I _{PP+} (Volts)	P _{PK+} (W)	C @ V _R = 0V, f = 1MHz (pF)
	Max	Max	Min	Max		Max	Max	Max	Typ.
ESD5451L	5.0	0.5	5.6	---	1.0	5	12	60	15

+ Surge current waveform per Figure 1.

Note 1: V_{BR} is measured with a pulse test current I_T at an ambient temperature of 25°C.

SURGE CURRENT WAVEFORM:

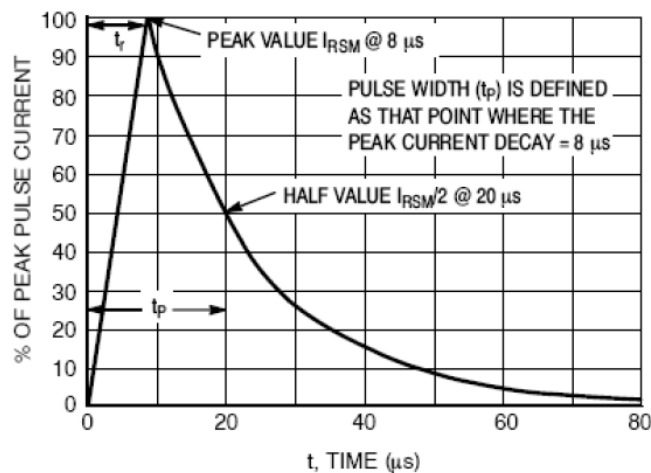
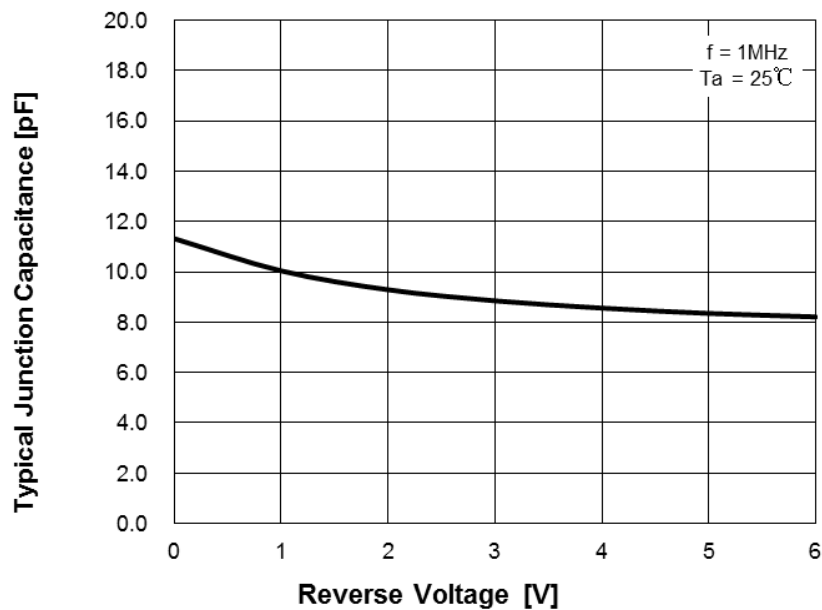
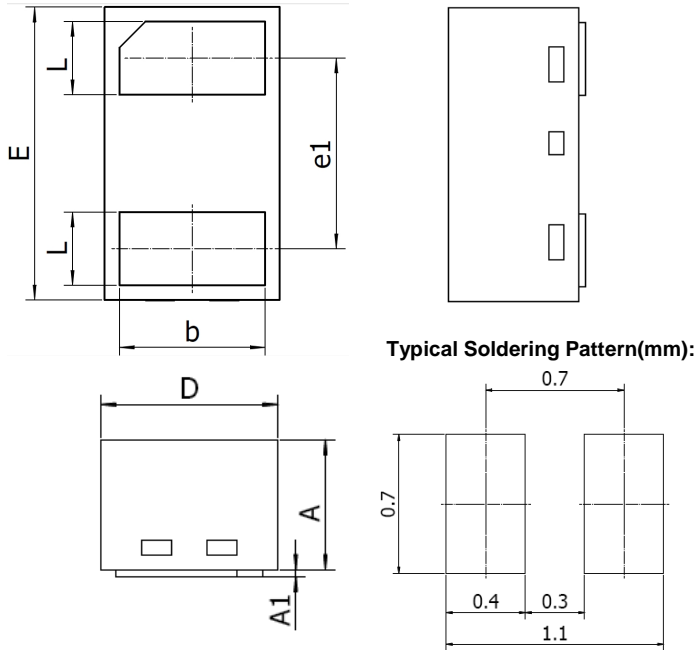


Figure 1. 8 x 20 μs Pulse Waveform

CAPACITANCE CURVE:



Package Outline



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.46	0.50	0.018	0.020
A1	---	0.03	---	0.001
b	0.45	0.55	0.018	0.022
D	0.55	0.65	0.022	0.026
E	0.95	1.05	0.037	0.041
e1	Typ. 0.65		Typ. 0.026	
L	0.20	0.30	0.008	0.012