

Features

- Fast response time
- Low reverse clamping voltage
- Low leakage current

Application

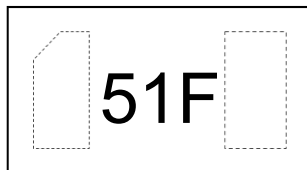
- Computers and peripherals
- High speed data lines
- Audio and video equipment
- Cellular handsets and accessories
- Portable electronics



DFN1006-2L view



Schematic diagram



Marking and pin assignment

51F: Code



Halogen-Free

Absolute Maximum rating

Over operating free-air temperature range (unless otherwise noted)

Symbol	Parameter	Value	Unit
$P_{PP}^{(2)}$	Peak Pulse Power	60.5	W
$I_{PP}^{(2)}$	Peak Pulse Current	5.5	A
T_L	Lead Solder Temperature – Maximum (10 Second Duration)	260	°C
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	°C
$V_{ESD}^{(1)}$	IEC 61000-4-2 ESD Voltage Air Model	±30	kV
	IEC 61000-4-2 ESD Voltage Contact Mode	±30	kV
	JESD22-A114-B ESD Voltage Per Human Body Model	±30	kV
	ESD Voltage Machine Mode	±0.4	kV

(1).Device stressed with ten non-repetitive ESD pulses.

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

Ordering Information (Example)

Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
ESDBEF5V0B1Q	DFN1006-2L	51F	10,000	150,000	600,000	7"reel

Electrical Characteristics ($T_J=25^{\circ}\text{C}$ unless otherwise noted)

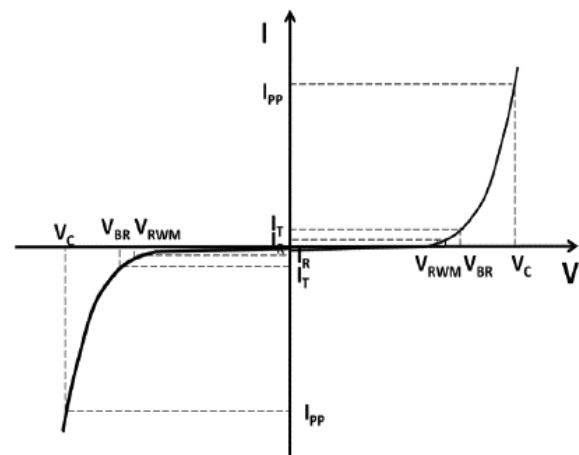
Device Type	V_{RWM} (Volts)	$I_R @ V_{RWM}$ (μA)	$V_{BR} @ I_T$ (Note 1) (Volts)		I_T (mA)	I_{PP+} (A)	$V_C @ \text{Max } I_{PP+}$ (Volts)	$C_J @ V_R = 0\text{V}, f = 1\text{MHz}$ (pF)
	MAX	MAX	MIN	MAX		MAX	MAX	TYP
ESDBEF5V0B1Q	5.0	0.2	6	9.5	1.0	5.5	10	0.3

(1).Other voltages available upon request.

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

ELECTRICAL PARAMETER

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



V-I characteristics for a uni-directional TVS

Typical Operating Characteristics

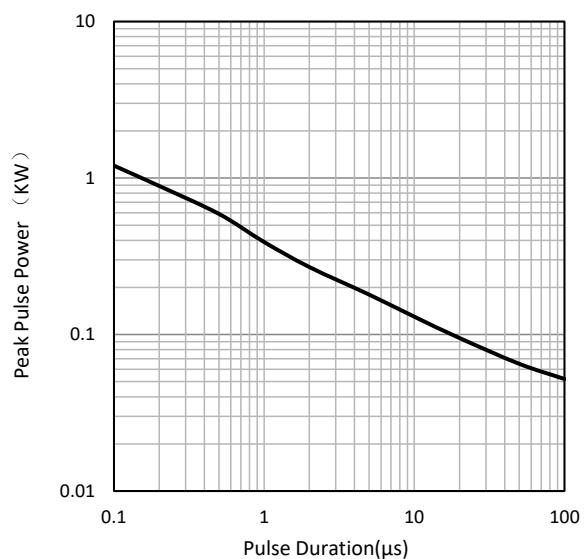


Figure 1. Pulse rating curve

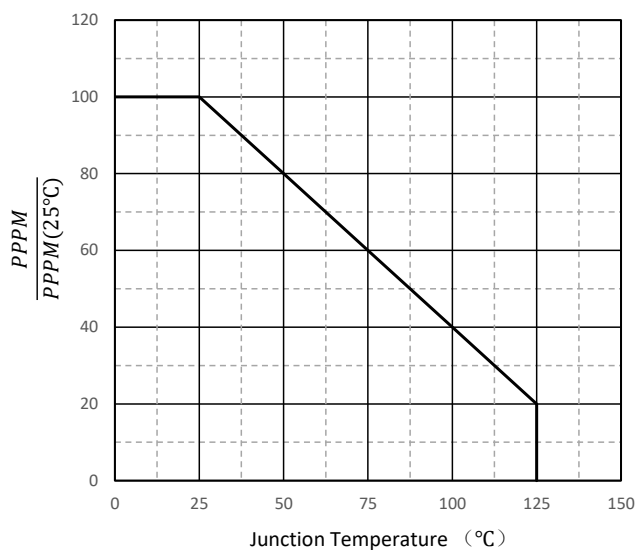


Figure 2 Peak pulse power derating curve

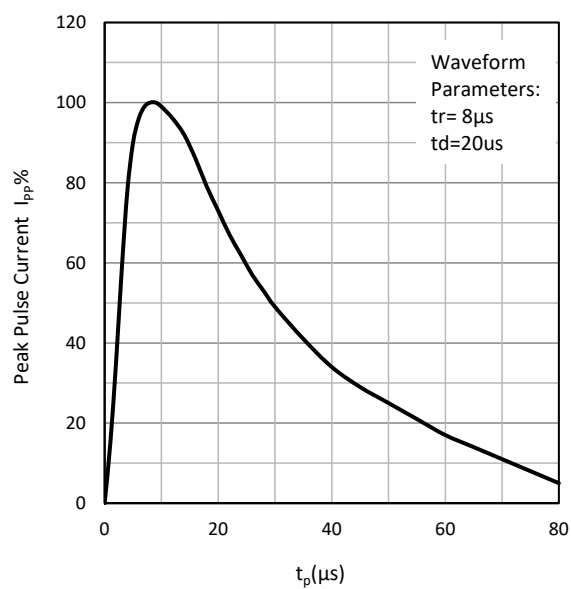
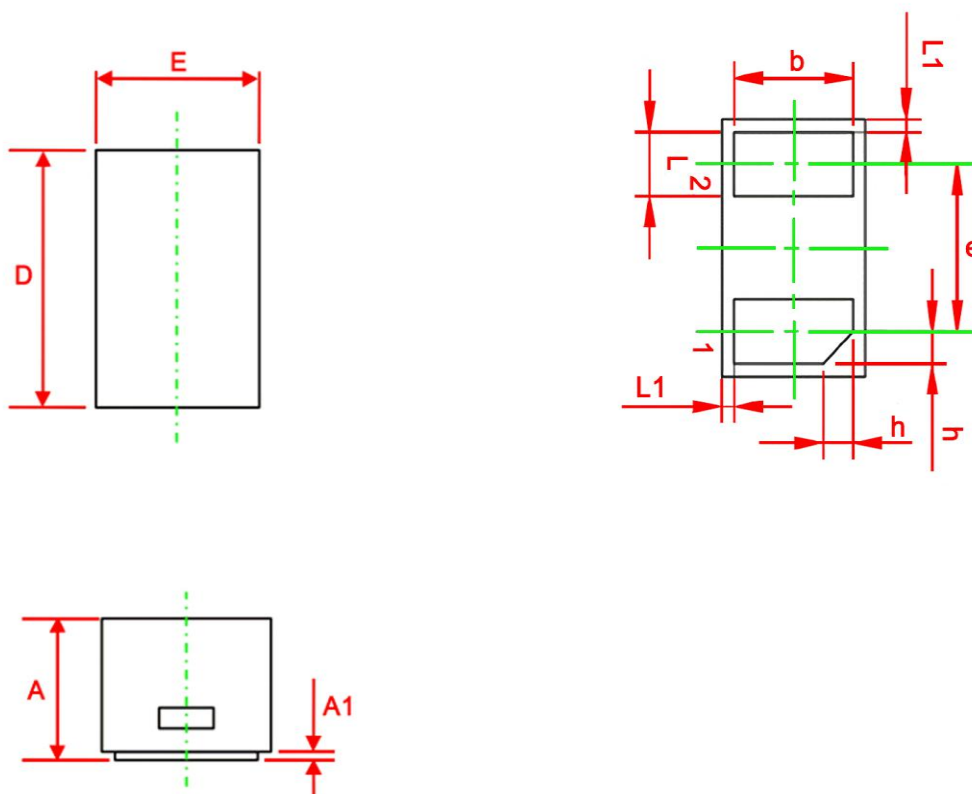


Figure 3 Pulse waveform

DFN1006-2L Package information



Symbol	Dimensions in Millimeters(mm)		Dimensions In Inches	
	Min	Max	Min	Max
D	0.550	0.650	0.022	0.026
E	0.950	1.050	0.037	0.041
L1	0.200	0.300	0.008	0.012
L2	0.200	0.300	0.008	0.012
A	0.450	0.550	0.018	0.022
b	0.450	0.550	0.018	0.022
e	0.64REF		0.025REF	
L	0.220	0.300	0.008	0.012
h	0.070	0.170	0.003	0.007