

Features

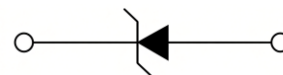
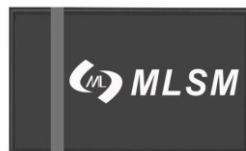
- Uni-directional ESD protection of one line
- Low reverse stand-off voltage: 5V
- Low reverse clamping voltage
- Low leakage current

Application

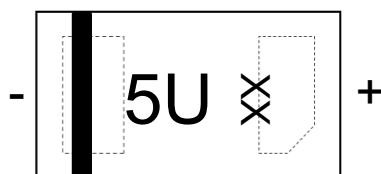
- Computers and peripherals
- High speed data lines
- Audio and video equipment
- Cellular handsets and accessories
- Portable electronics



DFN1006-2L view



Schematic diagram



Marking and pin assignment

5U: Device Code
XX: Code



Halogen-Free

Absolute Maximum rating

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

Symbol	Parameter	Value	Unit
P _{pp}	Peak pulse power (t _p =8/20us)@25℃	165	W
I _{pp}	Peak pulse current (t _p =8/20us)@25℃	11	A
V _{ESD}	ESD (IEC61000-4-2 air discharge) @25℃	±30	kV
V _{ESD}	ESD (IEC61000-4-2 contact discharge) @25℃	±30	kV
T _J	Junction temperature	150	℃
T _{OP}	Operating temperature	-40~125	℃
T _{STG}	Storage temperature	-55~150	℃
T _L	Lead temperature	260	℃

Ordering Information (Example)

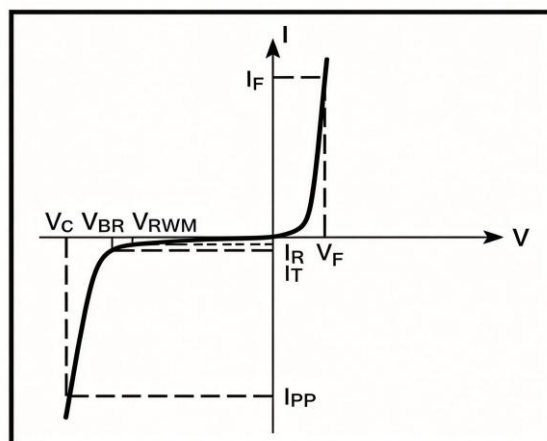
Type	Package	Marking	Minimum Package(pcs)	Inner Box Quantity(pcs)	Outer Carton Quantity(pcs)	Delivery Mode
ESDUEL5V0B1	DFN1006-2L	5U	10,000	150,000	600,000	7"reel

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

Symbol	Parameter	Conditions	Min	Typ	Max	Units
V_{RWM}	Reverse Standoff Voltage		–	–	5.0	V
V_{BR}	Reverse Breakdown Voltage	$I_T=1\text{mA}$	6	–	–	V
I_R	Reverse Leakage Current	$V_{RWM}=5\text{V}$	–	–	0.2	μA
V_F	Forward Voltage	$I_F=10\text{mA}$	–	–	1.0	V
V_C	Clamping Voltage	$I_{PP}=1\text{A}(8/20\mu\text{s})$	–	7.5	–	V
		$I_{PP}=10\text{A}(8/20\mu\text{s})$	–	9.5	–	V
C_J	Junction Capacitance	I/O to GND; $V_R=0\text{V}$; $f=1\text{MHz}$	–	0.4	–	pF

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_F	Forward Voltage @ I_F
I_F	Forward Current



V-I characteristics for a uni-directional TVS

Typical Operating Characteristics

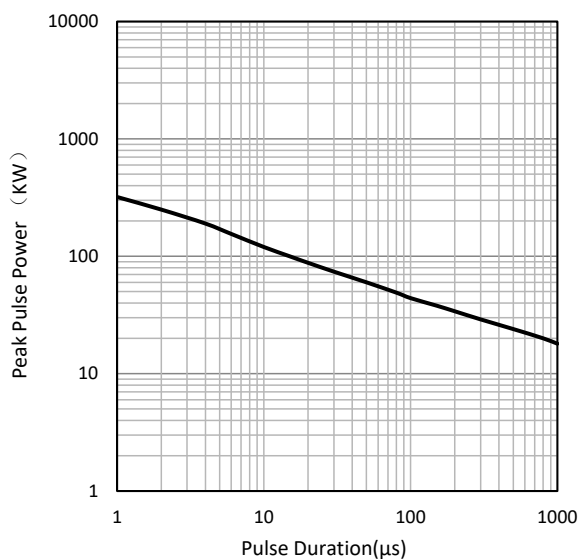


Figure 1. Pulse rating curve

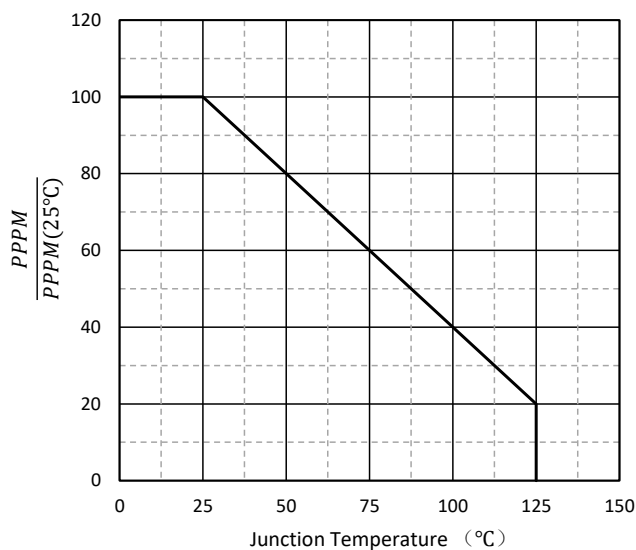


Figure 2 Peak pulse power derating curve

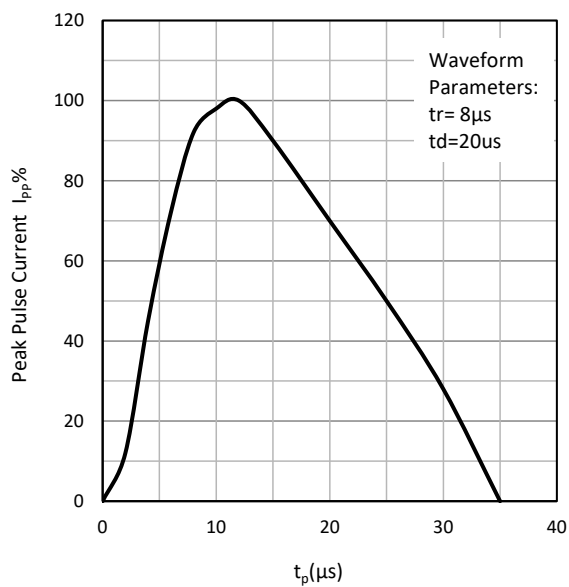
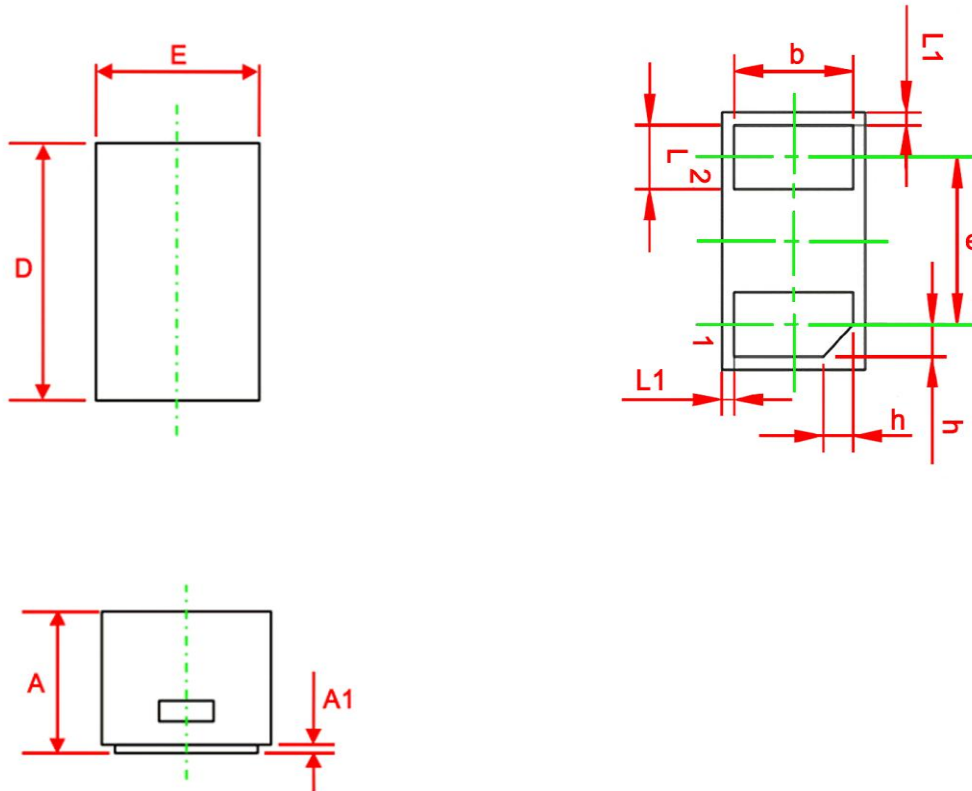


Figure 3 Pulse waveform

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