

## FEATURES

- ✧ Protects one I/O or power line.
- ✧ Low clamping voltage.
- ✧ Working voltage: 12.0V.
- ✧ Low leakage current.
- ✧ RoHS compliant.

## MAIN APPLICATIONS

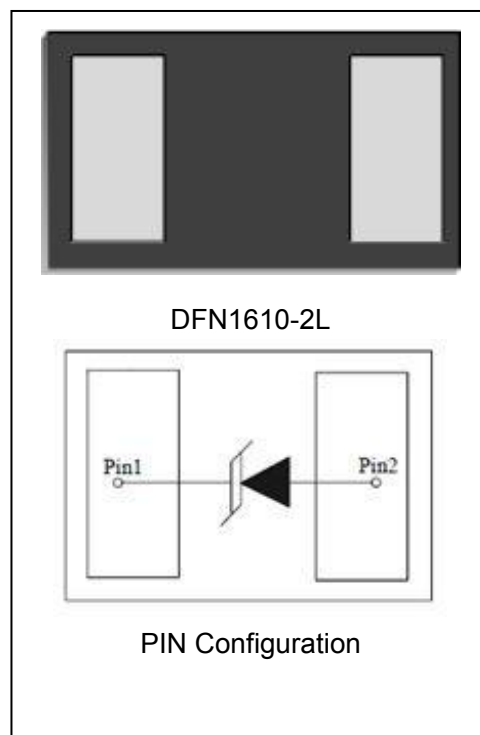
- ✧ Cellular phones.
- ✧ Personal digital assistants (PDA's).
- ✧ Laptop computers.
- ✧ Digital cameras.

## PROTECTION SOLUTION TO MEET

- ✧ IEC61000-4-2 (ESD)  $\pm 30\text{kV}$  (air),  $\pm 30\text{kV}$  (contact).
- ✧ IEC61000-4-4 (EFT) 40A (5/50ns).
- ✧ IEC61000-4-5 (Lightning) 70A (8/20 $\mu\text{s}$ ).

## MECHANICAL CHARACTERISTICS

- ✧ DFN1610-2L package.
- ✧ Molding compound flammability rating: UL 94V-0.
- ✧ Quantity per reel: 3,000pcs.
- ✧ Lead finish: lead free.
- ✧ Marking code: 12P.

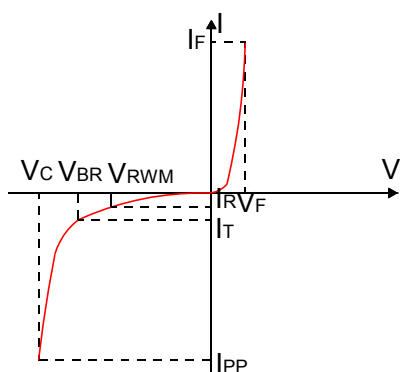
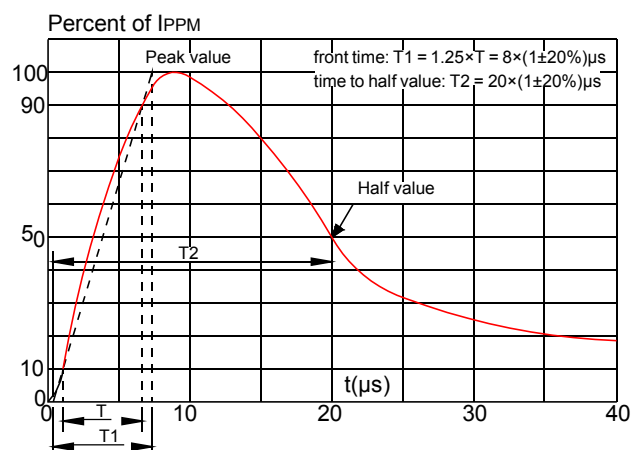
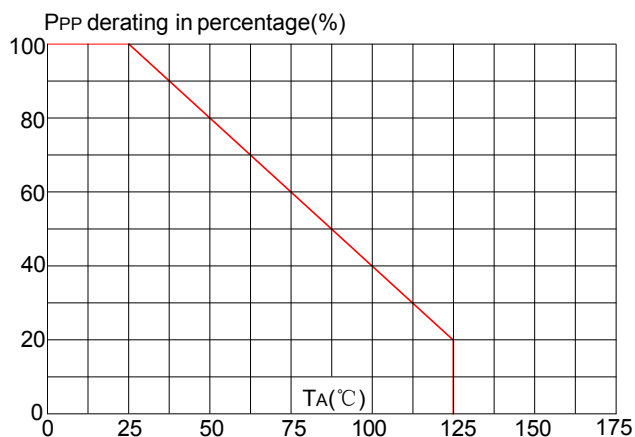
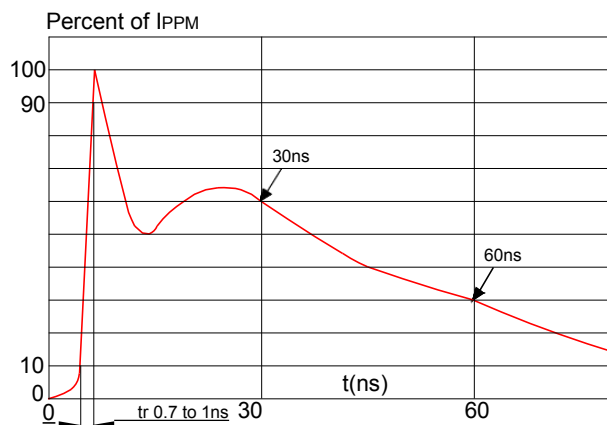


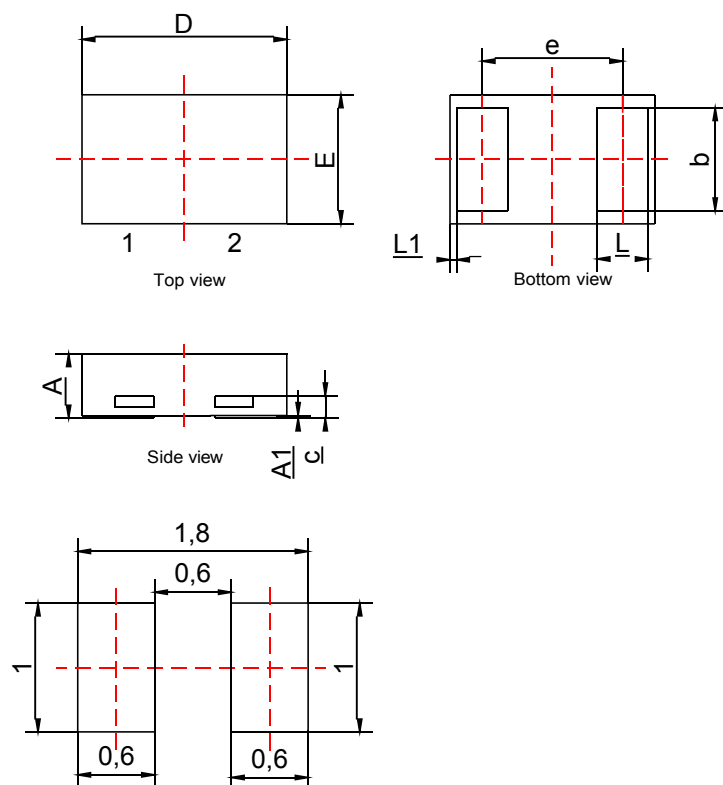
## ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ , RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak pulse power dissipation on 8/20 $\mu\text{s}$ waveform	$P_{PP}$	2000	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	$V_{ESD}$	+/- 30 +/- 30	kV
Lead soldering temperature	$T_L$	260 (10 sec.)	$^\circ\text{C}$
Operating junction temperature range	$T_J$	-55 to +125	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ )**

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse working voltage	$V_{RWM}$				12	V
Reverse breakdown voltage	$V_{BR}$	$I_T = 1\text{mA}$	13.3	14.4	17	V
Reverse leakage current	$I_R$	$V_{RWM} = 12\text{V}$			1	$\mu\text{A}$
Peak pulse current	$I_{PP}$	$t_P = 8/20\mu\text{s}$			70	A
Clamping voltage	$V_C$	$I_{PP}=20\text{A}, t_P=8/20\mu\text{s}$		16	19	V
		$I_{PP}=40\text{A}, t_P=8/20\mu\text{s}$		20	24	
		$I_{PP}=70\text{A}, t_P=8/20\mu\text{s}$		22	28	
Junction capacitance	$C_J$	$V_{RWM} = 0\text{V}, f = 1\text{MHz}$		370	450	pF

**RATINGS AND V-I CHARACTERISTICS CURVES ( $T_A=25^\circ\text{C}$ , unless otherwise noted)**
**FIG.1: V- I curve characteristics (Uni-directional)**

**FIG.2: Pulse waveform (8/20μs)**

**FIG.3: Pulse derating curve**

**FIG.4: ESD clamping (30KV contact)**


**PACKAGE MECHANICAL DATA**


Symbol	Millimeter		
	Min.	Typ.	Max.
A	0.45	0.50	0.55
A1	0.00	0.02	0.05
b	0.85	0.90	0.95
c	0.08	0.12	0.18
D	1.55	1.60	1.65
e	1.1BSC		
E	0.95	1.00	1.05
L	0.35	0.40	0.45
L1	0.06BSC		

**ORDERING INFORMATION**

OUTLINE	Package	Reel Size	Quantity Per Reel
TAPING	DFN1610-2L	7 Inch	3,000 pcs

**MARKING CODE**

Part Number	Marking Code
JEU12DP	<div> <div>Pin1</div> <div>12P</div> <div>Pin2</div> </div>

 Website: <http://www.jksemi.com>

For additional information, please contact your local Sales Representative.

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