



### **Bi-Directional ESD Protection Diode**

Voltage 12 V

#### **Features**

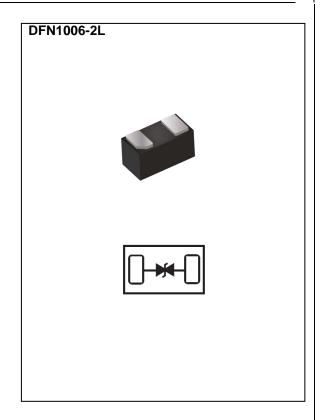
- 115W Power Dissipation (8/20us Waveform)
- Low Leakage Current, Maximum of 0.1uA@12Vdc
- Very Low Clamping Voltage
- IEC 61000-4-2(ESD) : ±30kV Air, ±30kV Contact Compliance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

#### **Mechanical Data**

• Case: DFN1006-2L Package

• Terminals : Solderable per MIL-STD-750, Method 2026

• Approx. Weight: 0.0006 grams



### **Maximum Ratings and Thermal Characteristics** (T<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Peak Pulse Power (8/20us Waveform)	P <sub>PP</sub>	115	W
Peak Pulse Power (8/20us Waveform)	I <sub>PPM</sub>	5	Α
ESD Voltage Per IEC61000-4-2 (Contact)		±30	
ESD Voltage Per IEC61000-4-2 (Air)	V <sub>ESD</sub>	±30	kV
ESD Voltage (HBM)		±8	
Operating Junction Temperature Range	TJ	-55~150	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C





# **Electrical Characteristics** (T<sub>A</sub> = 25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Reverse Stand-Off Voltage	$V_{RWM}$	-	ı	ı	12	V
Reverse Breakdown Voltage	$V_{BR}$	I <sub>BR</sub> = 1 mA	13	-	-	V
Reverse Leakage Current	I <sub>R</sub>	V <sub>R</sub> = 12 V	1	1	0.1	uA
Clamping Voltage	Vc	$I_{PP} = 1 \text{ A}, t_P = 8/20 \text{us}$			20	V
		$I_{PP} = 5 \text{ A}, t_P = 8/20 \text{ us}$	-	-	23	V
Off State Junction Capacitance	СJ	0 Vdc Bias f = 1 MHz		15	-	pF





#### **TYPICAL CHARACTERISTIC CURVES**

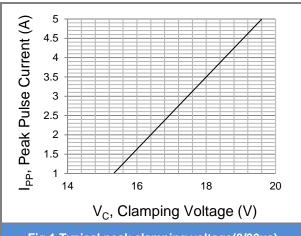


Fig.1 Typical peak clamping voltage(8/20us)

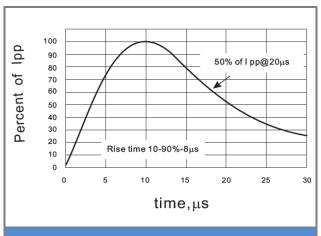


Fig.2 Pulse Waveform

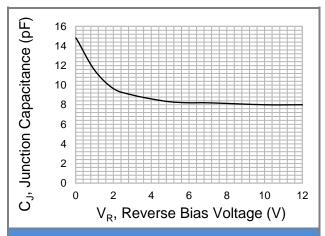


Fig.3 Typical Junction Capacitance

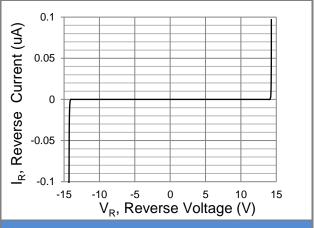


Fig.4 Typical Reverse Characteristics

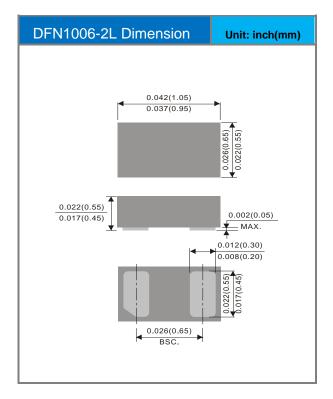


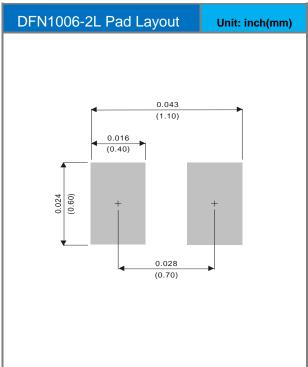


### **Product and Packing Information**

Part No.	Package Type	Packing Type	Marking	Version
PJSD12LCFN2	DFN1006-2L	10K pcs / 7" Reel	BX	Halogen free RoHS compliant

### **Packaging Information & Mounting Pad Layout**









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