ESD88NP

1-channel High Voltage ESD Protection TVS Zener Diode

Features

- Compact die protects from ESD discharges
- Small form-factor 8 x 8 mils sq
- Silicon chip thickness of 4 or 6 mils
- ESD protection to 8kV contact discharge per IEC 61000-4-2
- This product is in full RoHS compliance

Applications

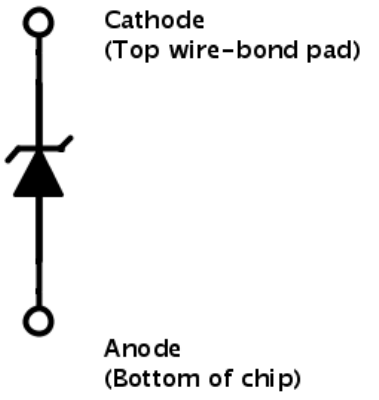
- Power LEDs
- High Brightness LEDs
- RF & Microwave Modules
- Multi-chip Modules
- Hybrid Microelectronics

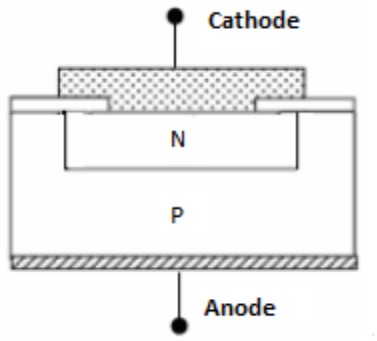
Product Description

The ESD88NP provides a high level of protection for sensitive parts that may be subjected to electrostatic discharge (ESD). The tiny form-factor and single wire-bond feature makes this device ideal for applications that have very confined spaces and miniature packaging. This product is designed with a large cross-sectional area junction for conducting high transient currents. It provides superior electrical characteristics such as lower clamping voltage and literally no device degradation when compared to Multilayer Varistors (MLV). This device is designed and characterized to safely dissipate ESD strikes of 8kV, when tested to the stringent MIL-STD-883 conditions.

ELECTRICAL CHARACTERISTICS @ 25°C						
SYMBOL	**PARAMETER**	**CONDITIONS**	**MIN**	**TYP**	**MAX**	**UNIT**
V_Z	Zener Diode Voltage	5V : I_Z = 10mA	5	-	7	V
		7V : I_Z = 10mA	7	-	9	V
I_R	Leakage Current	V_R = 5V	-	-	0.5	µA
V_F	Forward Voltage	I_F = 10 µA I_F = 20 mA	0.5 0.7	- -	0.9 1.2	V
V_{ESD}	ESD Withstand Voltage	ESD per IEC 61000-4-2 (Contact) ESD per IEC 61000-4-2 (Air)	8.0 15.0	- -	- -	kV

ESD88NP Electrical Schematic & Structure:





Ordering Information

Part No.					
Part Family	**Signal Clamp**	**Chip Thickness**	**Ship Method**	**Front Metal Pad for Wire-bonding**	**Back Metal for Die Attach**
ESD88NP	5V = 5 Volts	4 = 4 mils	W = Shipped as unsawn full wafer	A = Aluminum	1 = Gold
	7V = 7 Volts	6 = 6 mils	B = Diced and shipped on Mylar/tape	G = Gold	

Part Number Example: ESD88NP7V4BA1 is 8.0 x 8.0 mils sq ESD chip with 7V Clamp and 4 mil thickness, shipped as diced wafers on Mylar tape; the device has Aluminum top pads and Gold back-metal.

ESD88NP Die Dimensions