

Schottky Zero Bias Detector Diode

Rev. V2

Features

- Can be used without external DC bias
- Exhibits uniform R_v characteristics
- High Voltage Sensitivity
- P Type Schottky Diode
- Available in chip form (ODS-1261)
- RoHS Compliant* and 260°C Reflow Compatible

Description and Applications

The MA4E931Z2-1261A Zero Bias Detector (ZBD) diode is suitable for use in microstrip or stripline detector circuits. These chips can be used in automatic assembly processes due to their 0.004" gold bond pads and sturdy construction. Designed for high volume, low cost, detector applications.

Maximum Ratings

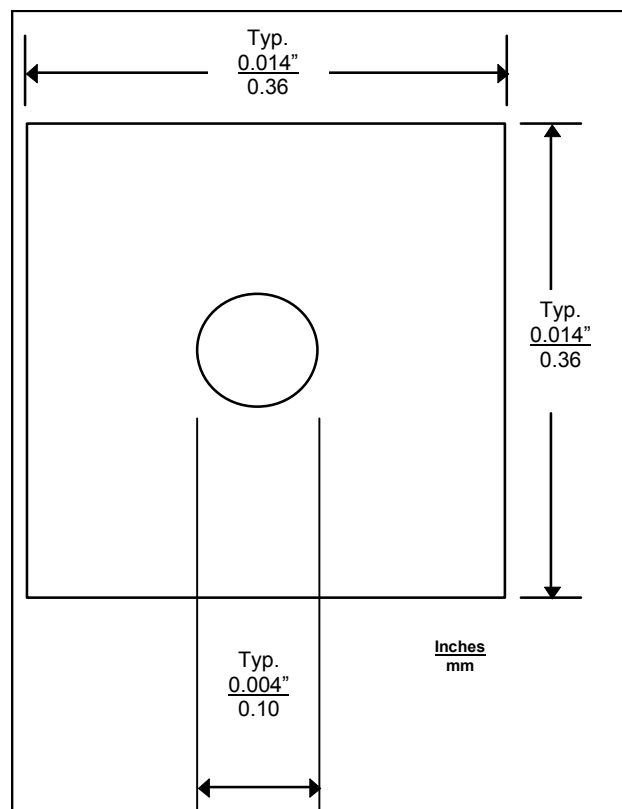
Parameter	Symbol	Unit	Values
Operating Temperature	T_{OP}	°C	-65 to +150
Storage Temperature	T_{STG}	°C	-65 to +150
Incident RF Power (CW)	P_T	mW	75
Reverse Voltage @ 25 °C	V_R	V	3

Electrical Specifications @ +25 °C

Parameter	Condition	Symbo	Specificatio
Breakdown Voltage	$I_R = 1.0$ mA	V_B	3.0 V min.
Forward Voltage	$I_F = 1.0$ mA	V_F	150 mV typ.

Chip Outline

MA4E931Z2-1261A



RF Performance @ 10.0 GHz @ +25 °C

Parameter	Conditions	Typical
Tangential Signal Sensitivity	BW = 2 MHz Video NF = 3.5 dB	-52 dBm min
Video Impedance (R_v)	BW = 2 MHz	2.5K Ω min 4.5K Ω max
Voltage Output (E_o)	BW = 2 MHz	5.0 mV min

* Restrictions on Hazardous Substances, European Union Directive 2002/95/EC.

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