

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

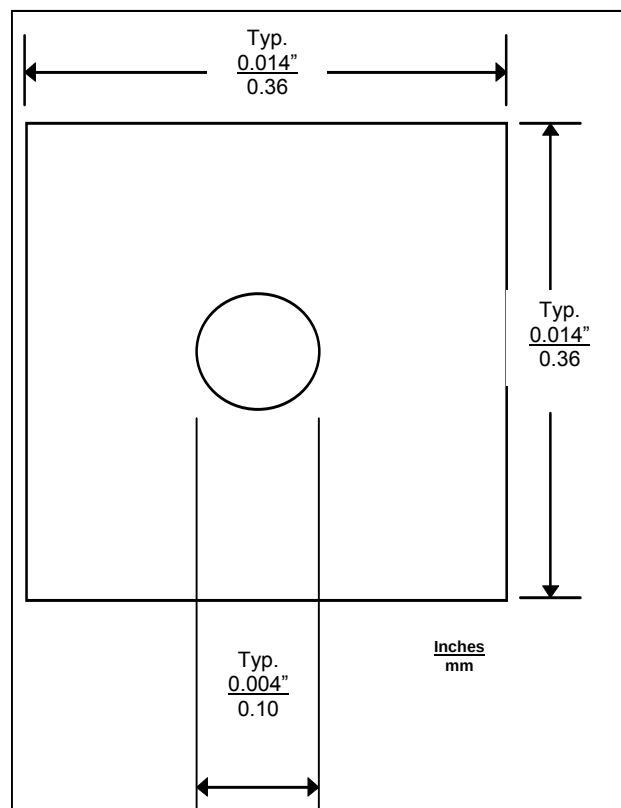
Parameter	Symbol	Unit	Values
Operating Temperature	T _{OP}	°C	-65 to +150
Storage Temperature	T _{STG}	°C	-65 to +150
Incident RF Power (CW)	P _T	mW	75
Reverse Voltage @ 25 °C	V _R	V	3

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	2.5KΩ min 4.5KΩ max
Voltage Output (E _o)	BW = 2 MHz	5.0 mV min

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

ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.

PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

• **North America** Tel: 800.366.2266 • **Europe** Tel: +353.21.244.6400
• **India** Tel: +91.80.43537383 • **China** Tel: +86.21.2407.1588

Visit www.macomtech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.