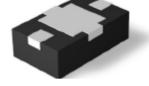


PIN Diode Shunt Switch Element

Rev. V1

Features

- Supports up to 40 W Power
- Low Insertion Loss:
 0.2 dB @ 2.7 GHz
 0.4 dB @ 8.0 GHz
- High Isolation:
 55 dB to 2.7 GHz
- RoHS* Compliant



(2615) Molded Plastic DFN

Description

A broadband, high linearity, medium power shunt switch element in a 2.6 x 1.5 mm DFN package.

This PIN diode switch element is designed for wireless telecommunications infrastructure and test instrument applications. It is also suited for other applications in $0.05 \sim 10$ GHz.

Electrical Specifications: $T_A = +25$ °C

Parameter	Test Conditions	Units	Min.	Тур.	Max.
Breakdown Voltage (V _B)	I _R = 10 μA	V	300	_	_
Insertion Loss (I _L)	V _R = 50 V 2.3 - 2.7 GHz <6.0 GHz	dB	_	0.20 0.40	0.30 0.50
Isolation (I _{SO})	V _R = -10 V 2.3 - 2.7 GHz <6.0 GHz	dB	50 35	55 40	_
Input / Output Return Loss (R _L)	I _F = 100 mA 2.3 - 2.7 GHz <6.0 GHz	dB	20 14	25 16	_
Minority Carrier Lifetime (T _L)	I _F = 10 mA, I _R = 6 mA, @ 50%	ns	_	3000	_

Absolute Maximum Ratings

Parameter	Absolute Maximum		
Breakdown Voltage	300 V		
Forward Current	200 mA		
Thermal Resistance	9°C/W		
Junction Temperature	+175°C		
Storage Temperature	-65°C to +150°C		
Assembly Temperature	+260°C, Per JEDEC STD-J-20C		

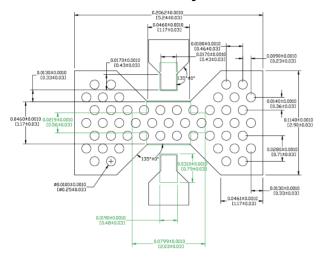
^{*} Restrictions on Hazardous Substances, European Union Directive 2011/65/EU.



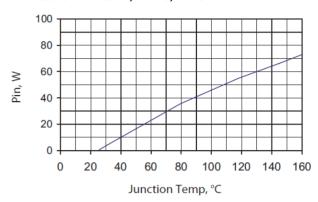
PIN Diode Shunt Switch Element

Rev. V1

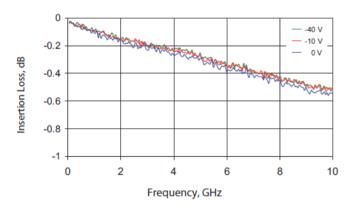
Printed Circuit Board Layout



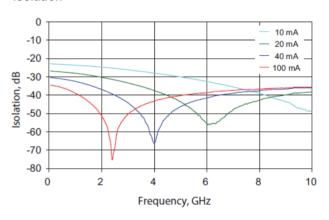
Junction Temperature vs. Power Mounted on Heatsink, +25°C, 1.3 GHz



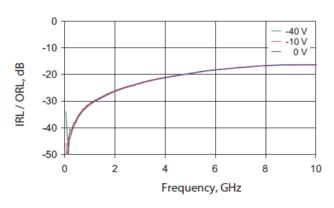
Insertion Loss



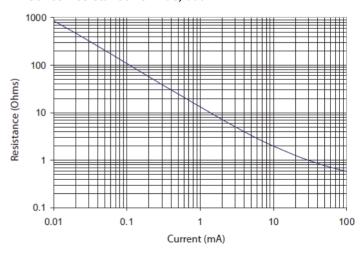
Isolation1



Input Return Loss



Series Resistance vs. Bias, 500 MHz



 Resonant frequencies vary with PCB layout. This performance measured on 20 mils Rogers RO3006 and with the printed circuit board layout shown above.

2

MACOM Technology Solutions Inc. (MACOM) and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

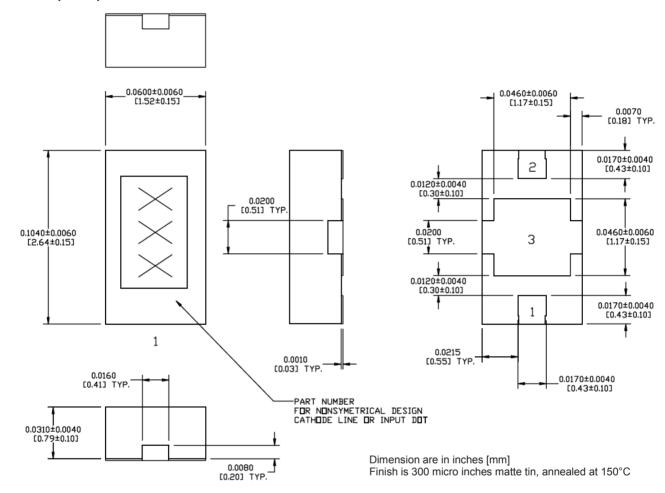
Visit www.macom.com for additional data sheets and product information.



PIN Diode Shunt Switch Element

Rev. V1

Outline (2615)



MSWSHC-040-40



PIN Diode Shunt Switch Element

Rev. V1

MACOM Technology Solutions Inc. All rights reserved.

Information in this document is provided in connection with MACOM Technology Solutions Inc ("MACOM") products. These materials are provided by MACOM as a service to its customers and may be used for informational purposes only. Except as provided in MACOM's Terms and Conditions of Sale for such products or in any separate agreement related to this document, MACOM assumes no liability whatsoever. MACOM assumes no responsibility for errors or omissions in these materials. MACOM may make changes to specifications and product descriptions at any time, without notice. MACOM makes no commitment to update the information and shall have no responsibility whatsoever for conflicts or incompatibilities arising from future changes to its specifications and product descriptions. No license, express or implied, by estoppels or otherwise, to any intellectual property rights is granted by this document.

THESE MATERIALS ARE PROVIDED "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING LIABILITY OR WARRANTIES RELATING TO FITNESS FOR A PARTICULAR PURPOSE, CONSEQUENTIAL OR INCIDENTAL DAMAGES, MERCHANTABILITY, OR INFRINGEMENT OF ANY PATENT, COPYRIGHT OR OTHER INTELLECTUAL PROPERTY RIGHT. MACOM FURTHER DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THE INFORMATION, TEXT, GRAPHICS OR OTHER ITEMS CONTAINED WITHIN THESE MATERIALS. MACOM SHALL NOT BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, INCLUDING WITHOUT LIMITATION, LOST REVENUES OR LOST PROFITS, WHICH MAY RESULT FROM THE USE OF THESE MATERIALS.

MACOM products are not intended for use in medical, lifesaving or life sustaining applications. MACOM customers using or selling MACOM products for use in such applications do so at their own risk and agree to fully indemnify MACOM for any damages resulting from such improper use or sale.

4

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for PIN Diodes category:

Click to view products by MACOM manufacturer:

Other Similar products are found below:

MA45471 APD1520-000 APD2220-000 BAR 63-02L E6327 BAR 64-02EL E6327 BAR 90-02ELS E6327 APD0810-000 MA4L032-186
MA4P606-258 MA4P7435NM-1091T MA4PK2000 MA4PK2001 MA4PK2002 MA4PK2003 MA4PK2004 MADP-030025-13140P BAR
65-02V H6327 MA4PBL027 MA4P404-30 MA4AGFCP910 MA4P7101F-1072T MA4L022-30 MA47047-54 CLA4610-000 UM9301SM
5082-3077 MADP-000502-12700P MA4P7493-134 MA4L011-1088 SMP1321-000 UM4010SM UM7006B MADP-000015-000030
MPP4203-206 MPS2R10-606 MPP4205-206 GC40605-15 MA4L021-1056 MSWSE-050-17 MADP-007455-0287DT MADP-0074481146DT MA4P929-401 MA4P7455-287T LM200802-M-A-300-T MADP-010633-13920T MADP-007436-0287DT
BAR6503WE6327HTSA1 MADP-007433-0287HT MPL4702-406/TR MPL4703-406/TR