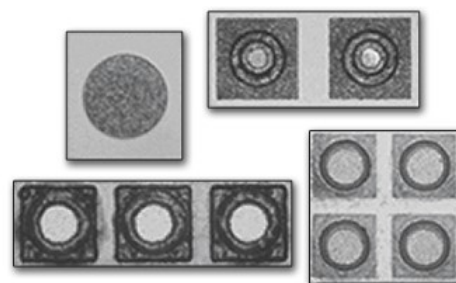


Features

- Voltage Breakdown up to 1000 V
- Passivated Mesa Construction
- Screening Available per MIL-PRF-19500 / 38534

Description

These silicon PIN diodes feature fully passivated mesa designs with tri-metallization for reliable operation under the most demanding conditions.



Electrical Specifications: $T_A = +25^\circ\text{C}$ (unless otherwise specified)

Part #	Breakdown Voltage V_B $I_R = 10 \mu\text{A}$	Series Resistance R_S $I_F = 100 \text{ mA}$ (100 MHz)	Junction Capacitance C_J $V_R = 50 \text{ V}$	Minority Carrier Lifetime $I_F = 10 \text{ mA}$ $I_R = 6 \text{ mA}$ 50% recovery	Theta	I-Region Width	Contact Diameter	Chip Size
	V	Ω	pF	ns	$^\circ\text{C/W}$	μm	mils	Mils (sq.)
	Min.	Max.	Max.	Nom.	Max.	Nominal		
MPN7330	300	0.5	0.40	500	10	30	10	15
MPN7360	600	0.4	1.00	2500	7	70	20	37
MPN7370	700	0.3	2.30	5000	5	70	40	64
MPN7380	800	0.5	0.60	2500	7	80	24	37
MPN7420	400	1.5	0.08	1000	30	100	5	15
MPN7453A-C12*	300	1.0	0.15	700	20	60	5	15
MPN7453B	400	0.9	0.20	2500	20	60	8	20
MPN7453C	300	0.7	0.25	1000	15	60	8	20
MPN73100-C32**	1000	1.0	0.30	3000	10	90	17	27

- * - C12 Die Thickness = 6 - 9 mils.
- ** - C32 Die Thickness = 13.5 mils.

Absolute Maximum Ratings^{1,2}

Parameter	Absolute Maximum
Power Dissipation (P_{DISS})	$P_{DISS} = \frac{175^{\circ}\text{C} - T_c}{\text{Thermal Resistance } \theta_{JC}}$
Reverse Voltage	Rated V_{BR}
Junction Temperature	+175°C
Storage Temperature	-65°C to +200°C

1. Exceeding any one or combination of these limits may cause permanent damage to this device.
2. MACOM does not recommend sustained operation near these survivability limits.

Handling Procedures

Please observe the following precautions to avoid damage:

Static Sensitivity

These electronic devices are sensitive to electrostatic discharge (ESD) and can be damaged by static electricity. Proper ESD control techniques should be used when handling these devices.

Figure 1.

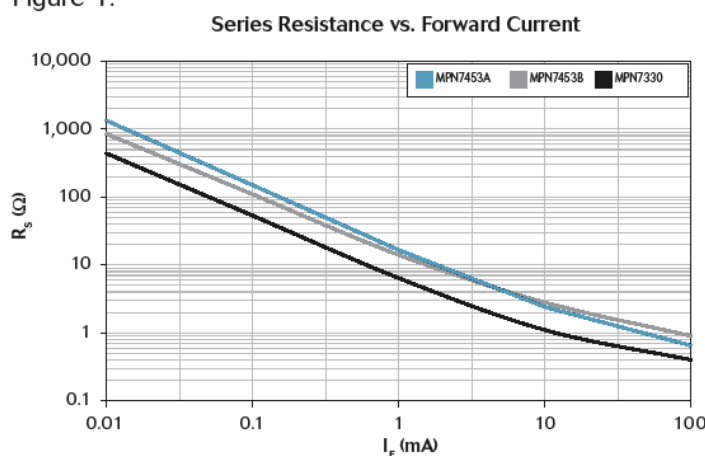


Figure 2.

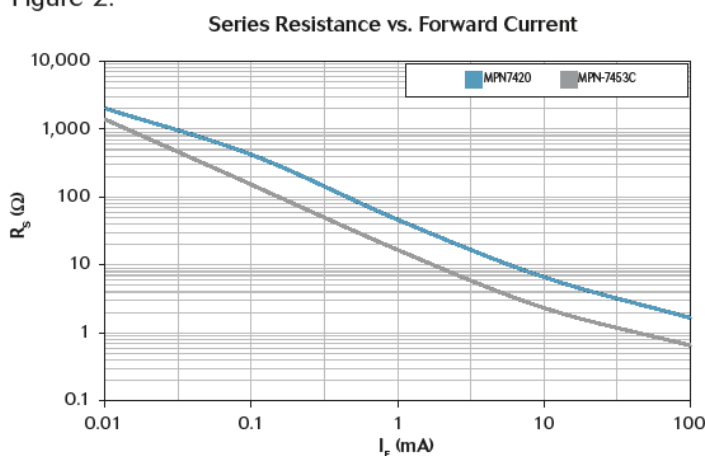
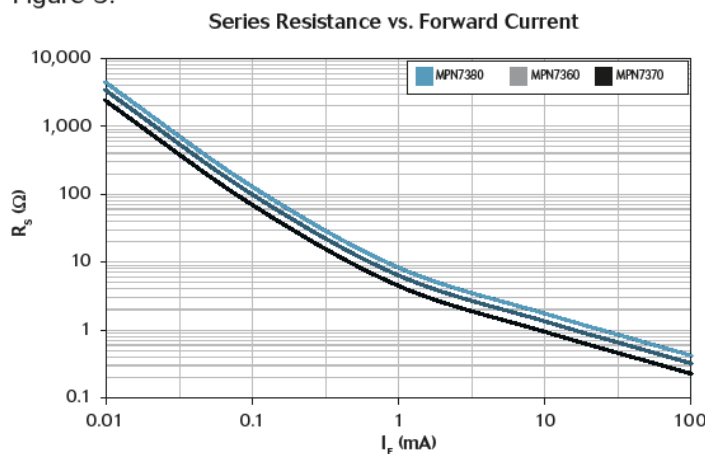


Figure 3.



MACOM Technology Solutions Inc. ("MACOM"). All rights reserved.

These materials are provided in connection with MACOM's products as a service to its customers and may be used for informational purposes only. Except as provided in its Terms and Conditions of Sale or any separate agreement, MACOM assumes no liability or responsibility whatsoever, including for (i) errors or omissions in these materials; (ii) failure to update these materials; or (iii) conflicts or incompatibilities arising from future changes to specifications and product descriptions, which MACOM may make at any time, without notice. These materials grant no license, express or implied, to any intellectual property rights.

THESE MATERIALS ARE PROVIDED "AS IS" WITH NO WARRANTY OR LIABILITY, EXPRESS OR IMPLIED, RELATING TO SALE AND/OR USE OF MACOM PRODUCTS INCLUDING FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHT, ACCURACY OR COMPLETENESS, OR SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM 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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[MACOM:](#)

[MPN7380-T83](#) [MPN7420-C12](#) [MPN7420-T55](#) [MPN7453A-C12](#) [MPN7453A-T86](#) [MPN7453B-C22](#) [MPN7453B-T83](#)