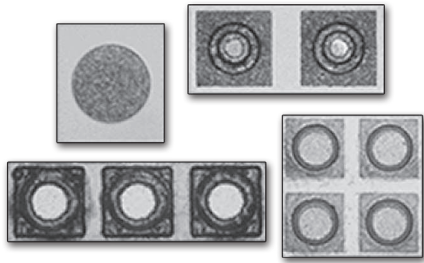


High Power Si PIN Diodes



Description

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

Features

- Voltage Breakdown up to 800 Volts
- Passivated mesa construction
- Screening per MIL-PRF-19500 and MIL-PRF-38534 is available

Electrical Specifications, $T_A = 25^\circ\text{C}$

Part Number	V_{BR} Min. V	C_J Max. pF	R_S Max. Ω	τ Typ. ns	Nominal I-Region Width μm	Nominal Contact Diameter mils	θ_{JC} Max. $^\circ\text{C}/\text{W}$	Nominal Chip Size mils
MPN7453A	300	0.15	1.0	700	60	8	20	15 x 15
MPN7453B	400	0.20	0.9	2500	60	8	20	20 x 20
MPN7453C	300	0.25	0.7	1000	60	8	15	20 x 20
MPN7420	400	0.08	1.5	1000	100	5	30	15 x 15
MPN7330	300	0.40	0.5	500	30	10	10	15 x 15
MPN7360	600	1.0	0.4	2500	70	20	7	37 x 37
MPN7370	700	2.3	0.3	5000	70	40	5	64 x 64
MPN7380	800	0.6	0.5	2500	80	24	7	37 x 37
Test Conditions	$I_R = 10 \mu\text{A}$	$V_R = 50 \text{V}$	$I_F = 100\text{mA}$ $f = 100 \text{MHz}$	$I_F = 10 \text{mA}$ $I_R = 6 \text{mA}$ 50% Recovery				

Absolute Maximum Ratings

Parameters	Limit
Power Dissipation, P_{DISS}	$P_{DISS} = \frac{175^\circ\text{C} - T_C}{\text{Thermal Resistance } \theta_{JC}}$
Junction Temperature, T_J	+175°C
Storage Temperature, T_{STG}	-65°C to +200°C
Reverse Voltage, V_R	Rated V_{BR}



Typical Performance, $T_A = 25\text{ }^\circ\text{C}$

Figure 1.

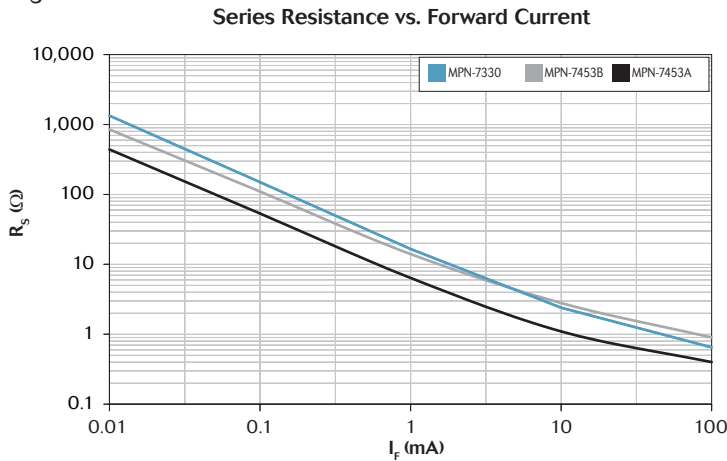


Figure 2.

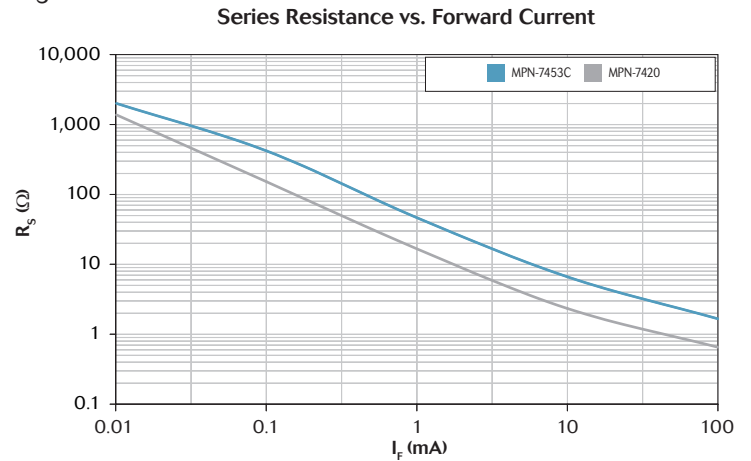
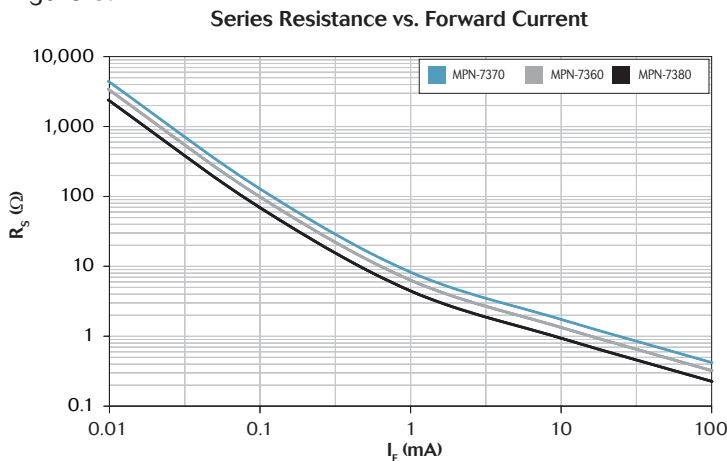


Figure 3.



Aeroflex / Metelics Inc.
 West Coast Operations
 975 Stewart Drive
 Sunnyvale, CA 94085
 TEL: 408-737-8181

Sales
 888-641-SEMI (7364)
 metelics-sales@aeroflex.com

www.aeroflex.com/microwave www.aeroflex.com/Metelics

Aeroflex / Metelics, Inc. reserves the right to make changes to any products and services herein at any time without notice. Consult Aeroflex or an authorized sales representative to verify that the information in this data sheet is current before using this product. Aeroflex does not assume any responsibility or liability arising out of the application or use of any product or service described herein, except as expressly agreed to in writing by Aeroflex; nor does the purchase, lease, or use of a product or service from Aeroflex convey a license under any patent rights, copyrights, trademark rights, or any other of the intellectual rights of Aeroflex or of third parties.

Copyright 2008 Aeroflex / Metelics. All rights reserved.

Aeroflex / Metelics Inc.
 East Coast Operations
 54 Grenier Field Road
 Londonderry, NH 03053
 TEL: 603-641-3800

ISO 9001:2008



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.