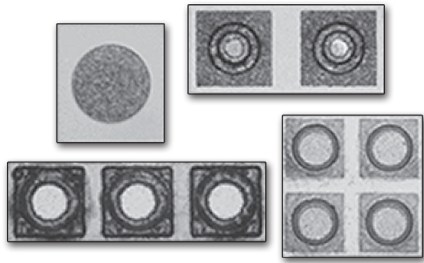


High Power Si PIN Diodes



Description

These silicon PIN diodes feature fully passivated mesa designs with Metelics's 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, $T_A = 25\text{ }^\circ\text{C}$

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. $^\circ\text{C/W}$	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	$I_R = 10\text{ }\mu\text{A}$	$V_R = 50\text{ V}$	$I_F = 100\text{ mA}$ $f = 100\text{ MHz}$	$I_F = 10\text{ mA}$ $I_R = 6\text{ mA}$ 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 $^\circ\text{C}$
Storage Temperature, T_{STG}	-65 $^\circ\text{C}$ to +200 $^\circ\text{C}$
Reverse Voltage, V_R	Rated V_{BR}

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

Figure 1.

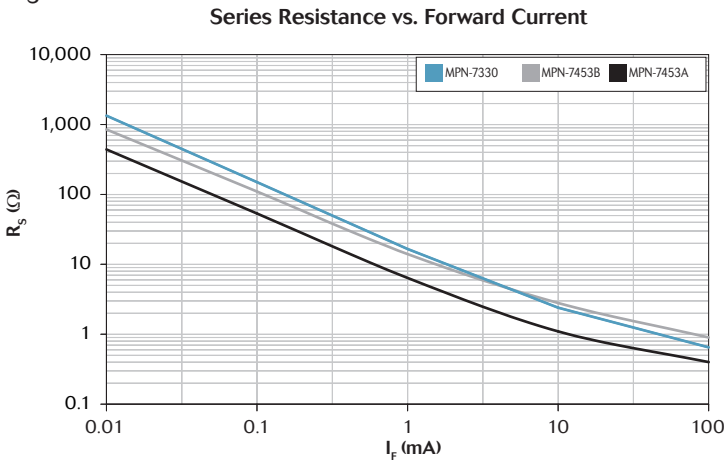


Figure 2.

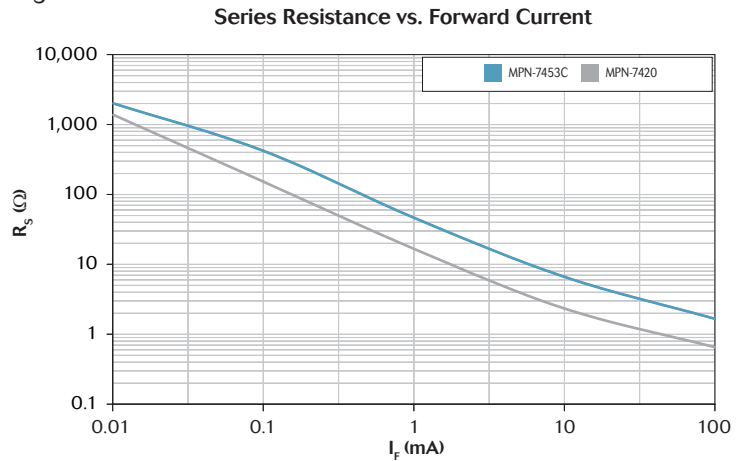
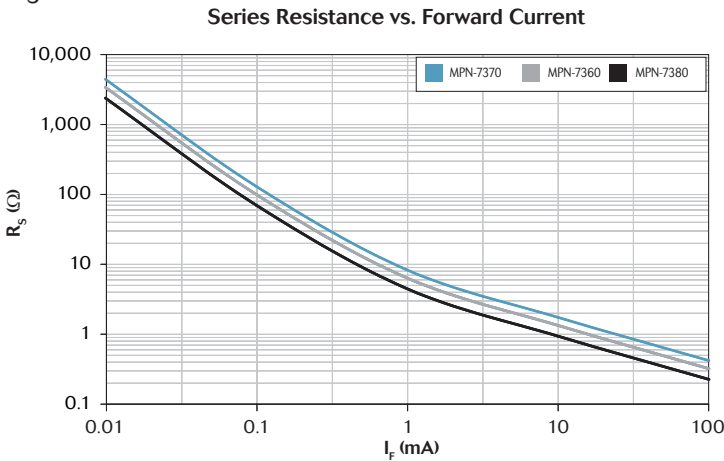


Figure 3.



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