MACOM™

Partners in RF & Microwave

MACOM Extends Leadership in Diodes with Broadband Shunt Diodes in Ultra Small Plastic Packages

Value Proposition

- *The MACOM Shunt PIN Diode Series is designed for customers who need a versatile, low cost, ultra-small Shunt PIN diode element for land mobile radio, wireless infrastructure and test instrument applications. Unlike the competition, MACOM's small, 1.5 X 1.2 mm plastic package reduces board space while enabling broadband performance comparable to chip-scale devices. Typical applications include high power switching through 6GHz with incident power up to 100W. Boasting excellent performance, low cost and easy implementation, the Shunt PIN Diode series offers a winning combination for customers looking for high-power diode solutions.*

Parameters	Units	MADP-011027-14150T	MADP-011028-14150T	MADP-011029-14150T
Frequency	GHz	0.05-12	0.05-12	0.05-12
Capacitance (@-50V)	pF	0.24	0.24	0.31
Series Resistance	Ω	1.9	3.4	1.5
Breakdown Voltage	V	100 (min)	200 (min)	500 (min)
Power Dissipation	W	3.3	4.3W max	7.5
Size	-	1.5 x 1.2	1.5 x 1.2	1.5 x 1.2
Process	-	Si	Si	Si

Product Performance and Details

Features:

- 3 terminal LPF broadband shunt structure
- Lead-Free 1.5 x 1.2mm 6-Lead DFN package
- 25 dB shunt isolation

Key Specifications

- >100 W peak power handling
- < 0.1 dB Shunt Insertion Loss
- 0.05 – 12 GHz Frequency

Applications:

Multi-Market Applications including:

- Land Mobile
- Radios
- Industrial, Medical, Scientific
- Electronic Warfare, Aerospace and Defense.

Better than Competition:

- Smaller Size
- Higher breakdown voltage (MADP-011029 Cermachip™ technology)
- Low Shunt inductance ; High isolation / Low loss

Functional Schematic