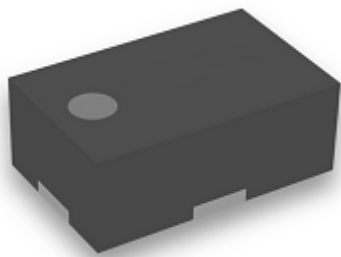


MSWSSB-020-30

PIN DIODE SHUNT SWITCH ELEMENT



(2012)
Molden Plastic DFN



AEROFLEX
A passion for performance.

Description

A broadband, High Linearity medium power series shunt switch element in a 1.9 X 1.1 mm DFN package. This device is designed for wireless Telecommunication infrastructure and test instrument applications. It is also suited for other applications in 0.1 ~ 10 GHz.

Features

- Supports up to 20 watt
- Low insertion loss typical 0.3 dB @ 2.7 GHz
- Low insertion loss typical 0.4 dB @ 10.0 GHz
- High Isolation typical 55 dB @ 2.7 GHz
- High Isolation typical 33 dB @ 10.0 GHz

Maximum Ratings

RATING	LIMITS	UNITS
V_R	200	V
I_F	100	mA
In. Power	20 (CW)	Watts
T_J	+175	°C
T_{STG}	-65 to +150	°C
T_{SOLDER}	+260 °C per JEDEC STD-J-20C	

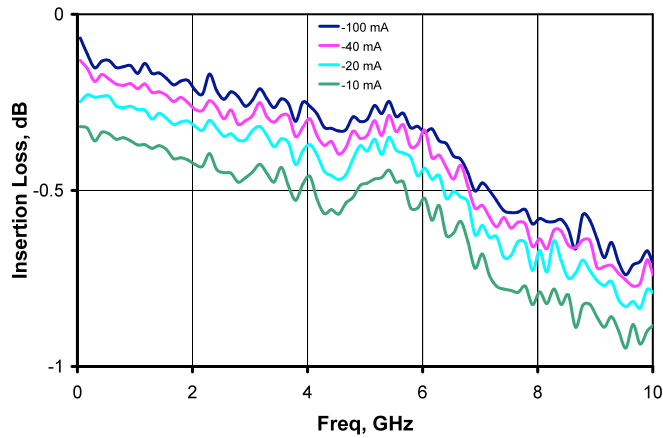
Electrical Characteristics, $T_C = +25\text{ °C}$

SYMBOL	TEST CONDITIONS			MIN	TYPICAL	MAX	UNITS
V_{BR}	$I_R = 10\text{ }\mu\text{A}$			200	—	—	V
SP	IF = 10 mA	$I_R = 6\text{ mA}$	10%/90%	—	1000	—	ns
I_L	$I = -50\text{ mA}^*$	F = 2.3 ~ 2.7 GHz		—	0.3	0.5	dB
		F < 10.0 GHz		—	0.6	0.8	dB
IRL	$I = -50\text{ mA}^*$	F = 2.3 ~ 2.7 GHz		20	25	—	dB
		F < 10.0 GHz		15	20	—	dB
ORL	$I = -50\text{ mA}^*$	F = 2.3 ~ 2.7 GHz		20	25	—	dB
		F < 10.0 GHz		15	18	—	dB
I_{so}	$I = +50\text{ mA}^*$	F < 2.3 ~ 2.7 GHz		45	55	—	dB
				28	35	—	dB

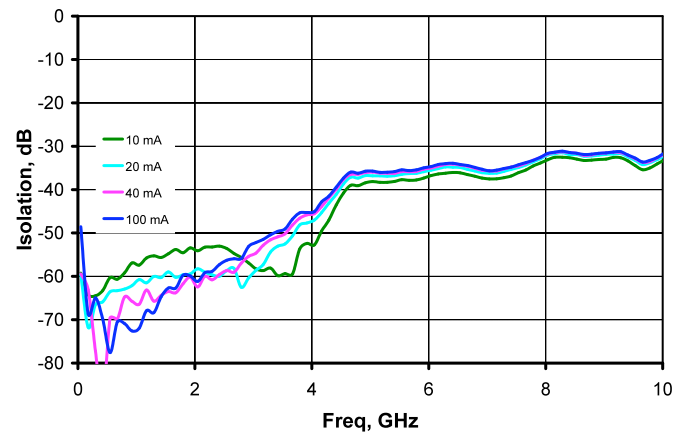
* Positive current is defined as current going into PIN 2.

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METELICS

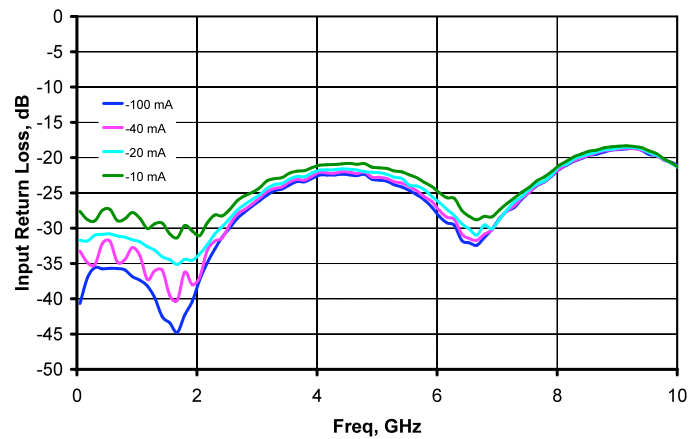
R-F Performance Insertion Loss



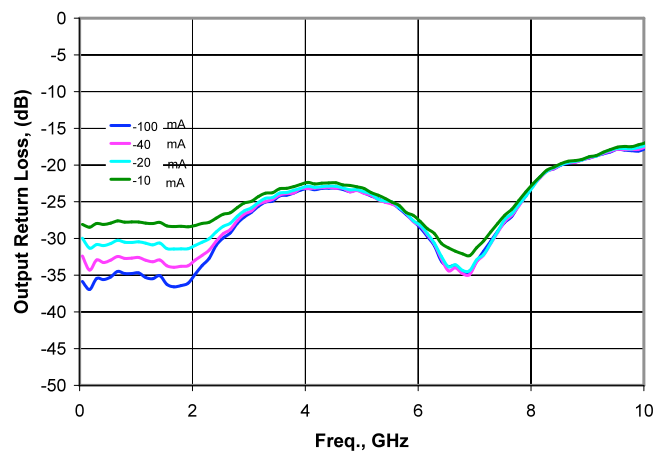
R-F Performance Isolation



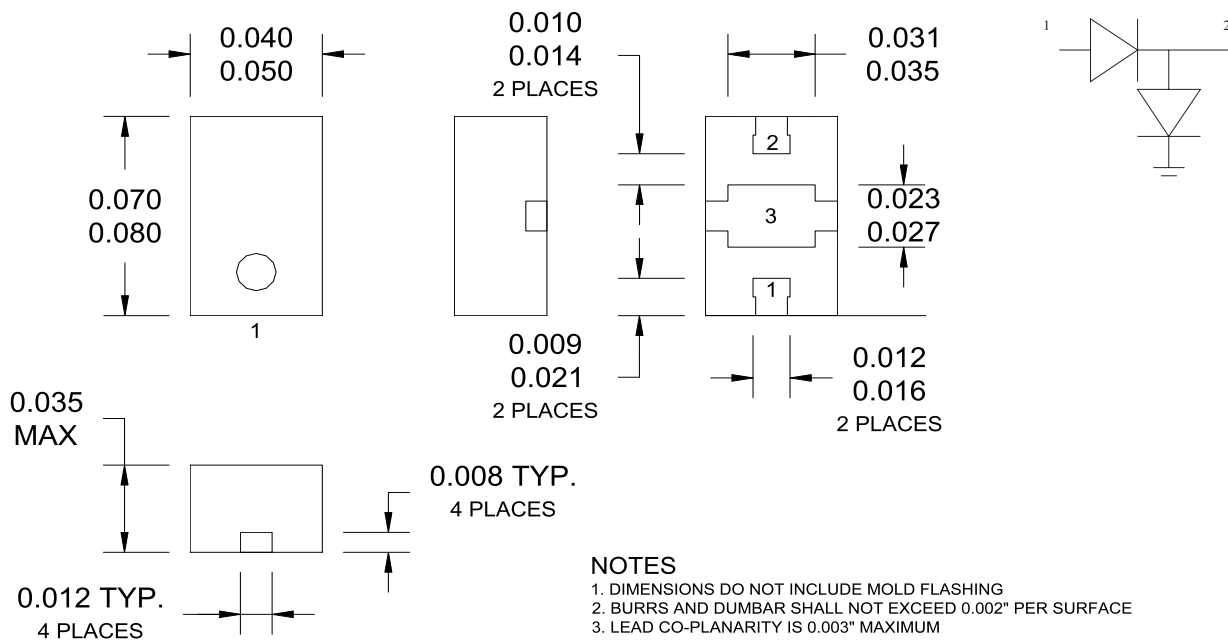
R-F Performance Input Return Loss



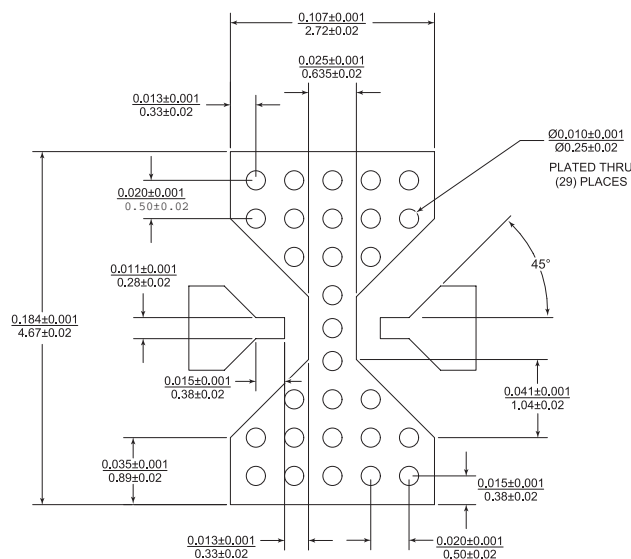
R-F Performance Output Return Loss



Package Outline



Printed Circuit Board Layout



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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.