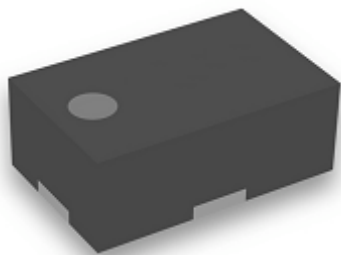


MSWSSB-020-30

PIN DIODE SHUNT SWITCH ELEMENT



(2012)
Molden Plastic DFN



Description

A broadband, High Linearity medium power series shunt switch element in a 1.9X 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	

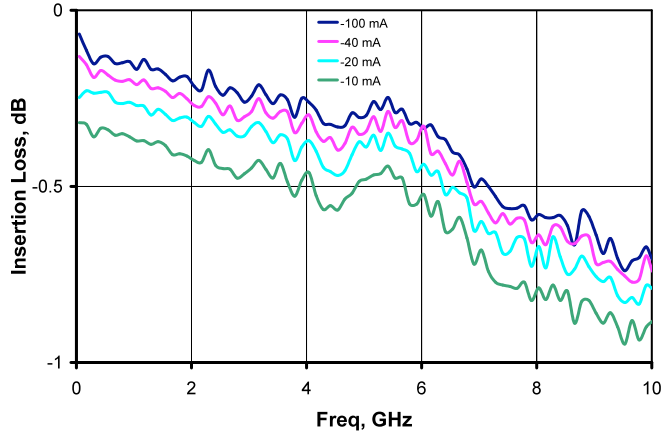
Electrical Characteristics, $T_c = +25\text{ °C}$

SYMBOL	TEST CONDITIONS		MIN	TYPICAL	MAX	UNITS
V_{BR}	$I_R = 10\ \mu\text{A}$		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_{50}	$I = +50\ \text{mA}^*$	F < 2.3 ~ 2.7 GHz	45	55	-	dB
			28	35	-	dB

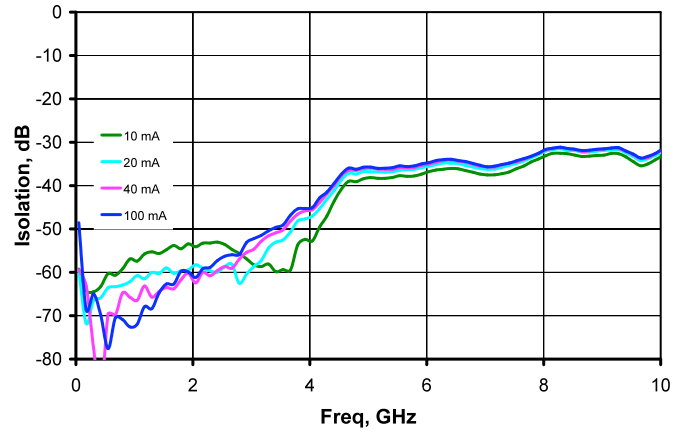
* Positive current is defined as current going into PIN 2.



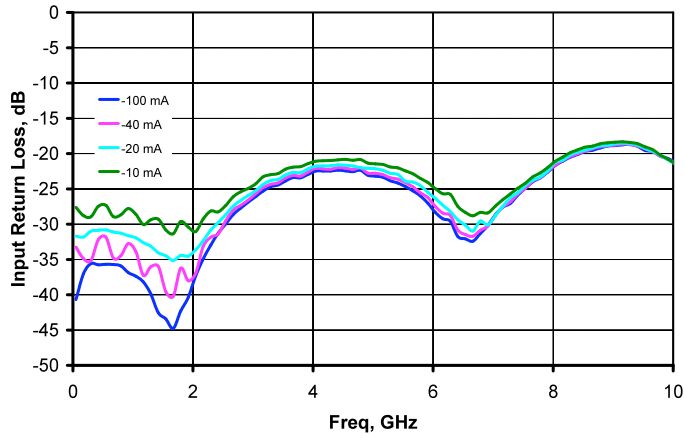
R-F Performance Insertion Loss



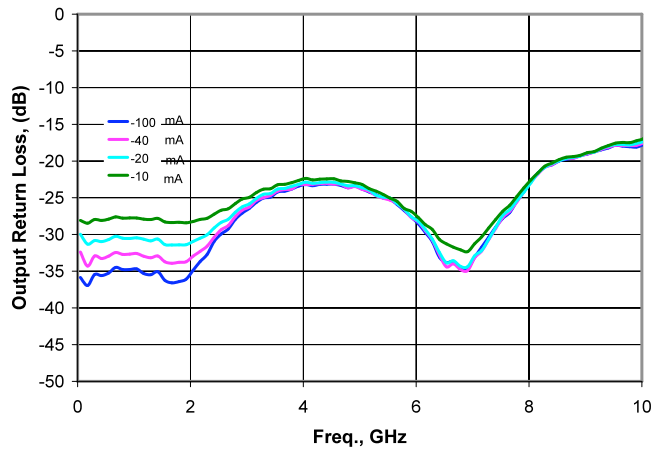
R-F Performance Isolation



R-F Performance Input Return Loss



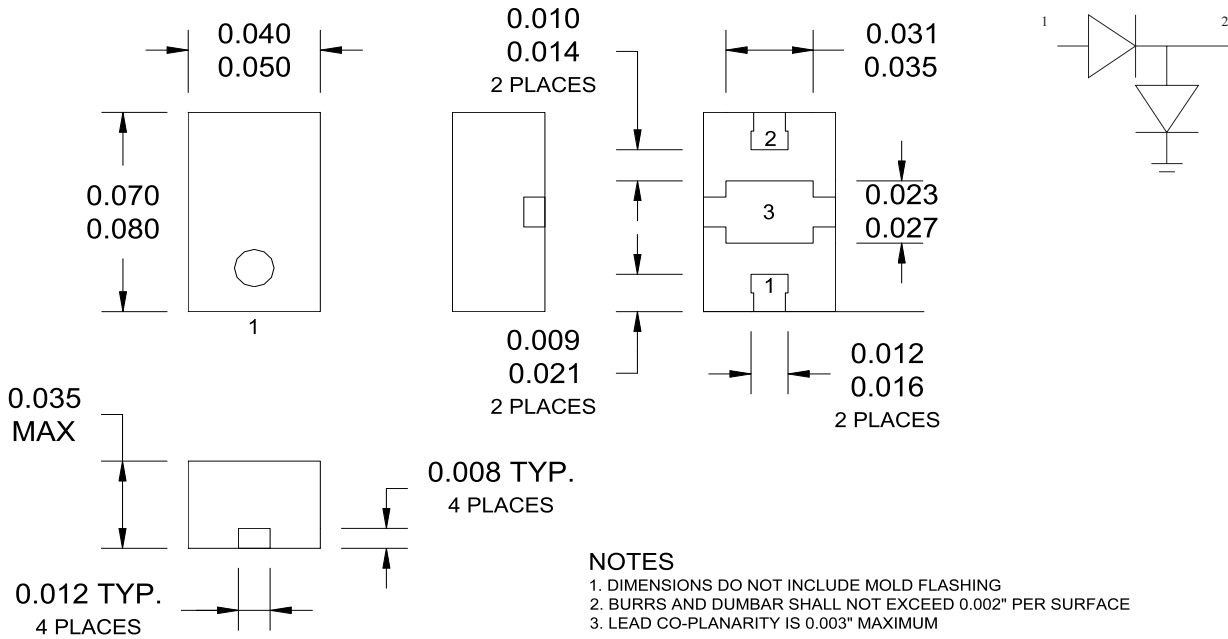
R-F Performance Output Return Loss



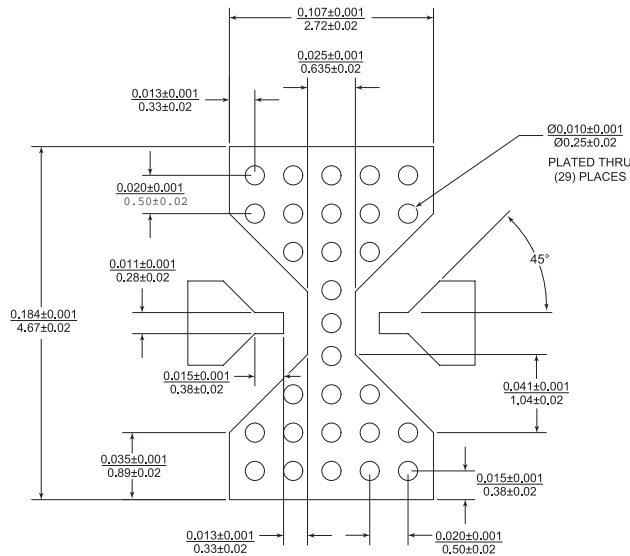
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Package Outline



Printed Circuit Board Layout



Aeroflex / Metelics Inc.

Aeroflex Microelectronic Solutions
975 Stewart Drive
Sunnyvale, CA 94085
TEL: 408-737-8181

54 Grenier Field Road
Londonderry, NH 03053
TEL: 603-641-3800

Sales

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

www.aeroflex.com/Microwave www.aeroflex.com/Metelics

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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.