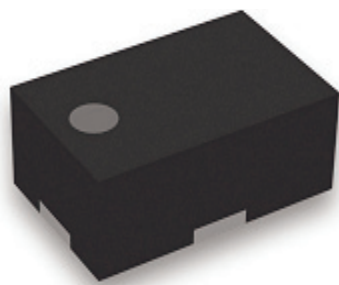


# MEST<sup>2</sup>G-020-15

## PIN DIODE SWITCH ELEMENT



(2012)  
Plastic Molded DFN



### Description

A broadband medium power switch element in a 1.9 X 1.1 mm DFN package. This device is Electrical Series and Thermal direct to Ground (EST2G). This device can be is designed for wireless infrastructure applications and test instruments. It is also suited for other applications from 100 MHz up to 6 GHz.

### Features

- Supports up to 20 watts power
- Low insertion loss typical 0.2 dB up to 2.7 GHz
- High Isolation typical 18 dB typical up to 2.7 GHz

### Maximum Ratings

RATING	LIMITS	UNITS
$V_R$	125	V
$I_F$	100	mA
$\theta_{JC}$	65	°C/W
$T_J$	+175	°C
$T_{STG}$	-65 to +150	°C
$T_{SOLDER}$	+260 °C per JEDEC STD-J-20C	

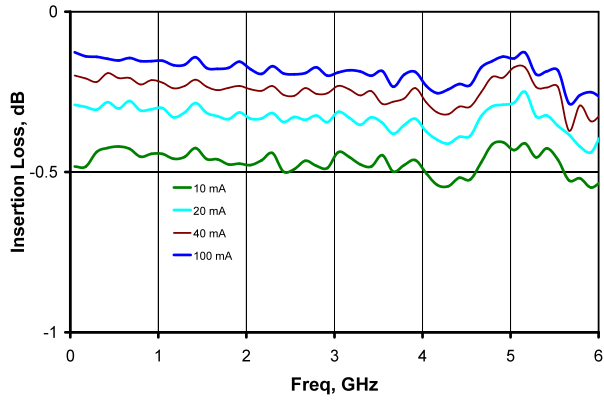
### Electrical Characteristics, $T_c = +25\text{ °C}$

SYMBOL	TEST CONDITIONS			MIN	TYPICAL	MAX	UNITS
$V_{BR}$	$I_R = 10\ \mu\text{A}$			125	–	–	V
$R_S$	$I_F = 50\ \text{mA}$			–	0.8	–	$\Omega$
$C_J$	$V_B = -10\ \text{V}$			–	0.08	–	pF
$\tau$	$I_F = 10\ \text{mA}$	$I_R = 6\ \text{mA}$	10% / 90%		50	–	ns
$W$	I - Layer			–	8	–	$\mu\text{m}$
$I_L$	$I_F = 50\ \text{mA}$	F = 2.3 ~ 2.7 GHz			0.2	0.3	dB
		F < 6.0 GHz		–	0.3		dB
IRL	$I_F = 50\ \text{mA}$	F = 2.3 ~ 2.7 GHz		23	27	–	dB
		F < 6.0 GHz		18	22	–	dB
$I_S$	$V_R = -10\ \text{volts}$	F = 2.3 ~ 2.7 GHz		15	18		dB
		F < 6.0 GHz		10	12	–	dB

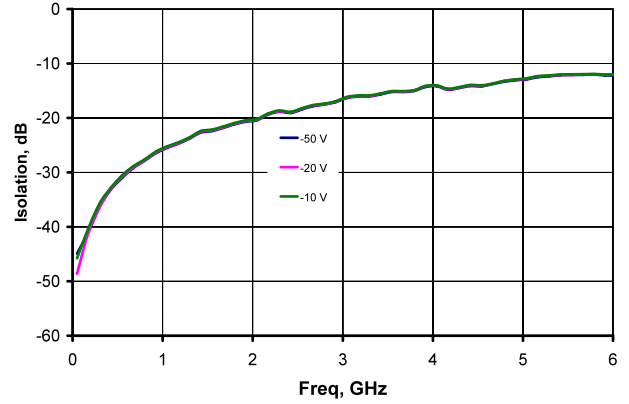


## Typical RF Performance at $T_A = 25\text{ }^\circ\text{C}$ , $Z_0 = 50\ \Omega$ , Small Signal

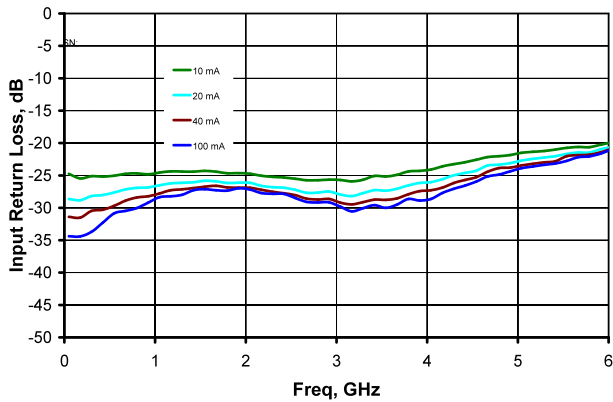
### Insertion Loss



### Isolation



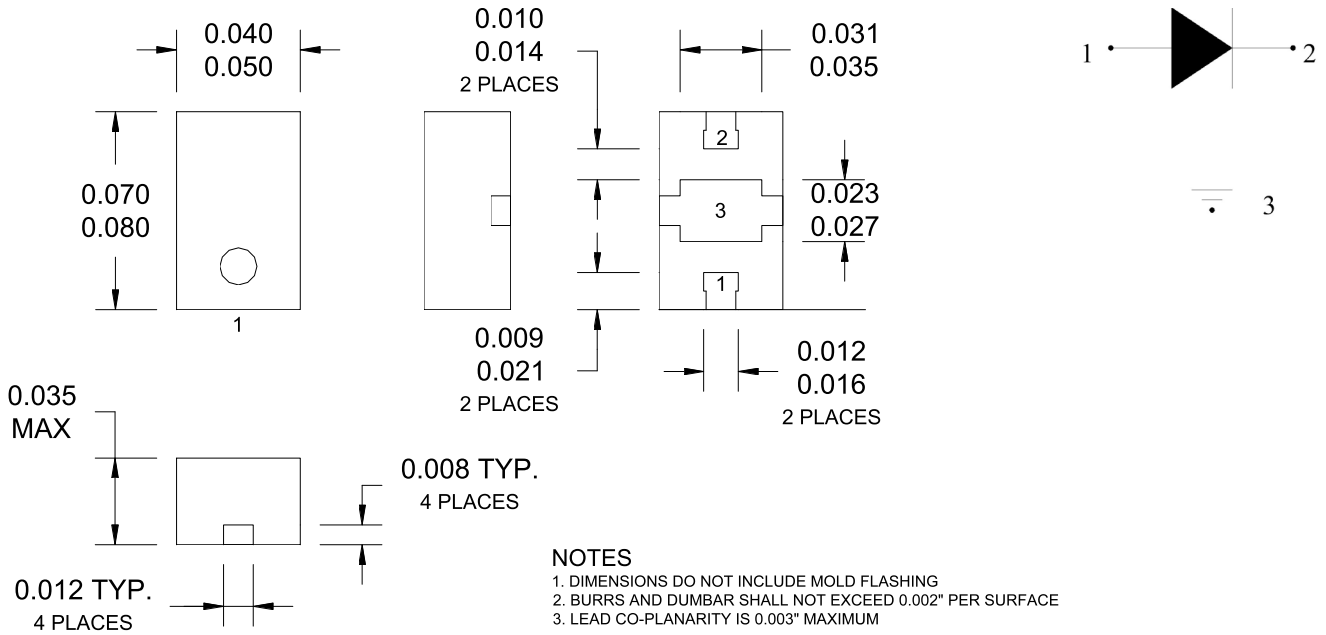
### Input Return Loss



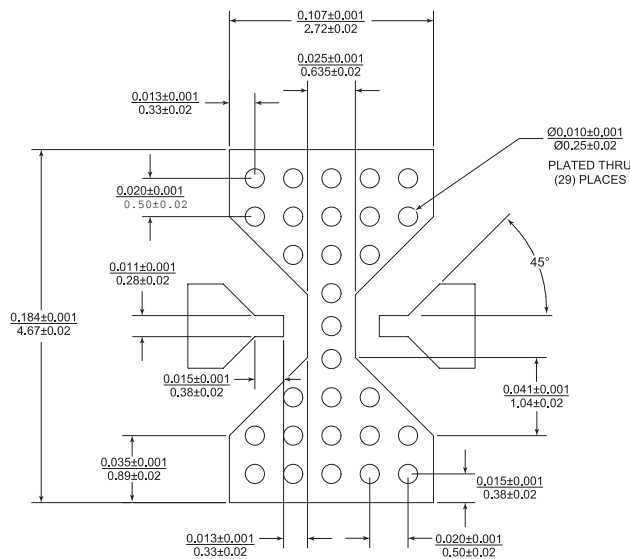
# MEST<sup>2</sup>G-020-15



## Package Outline



## Printed Circuit Board Layout



### Aeroflex / Metelics Inc.

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