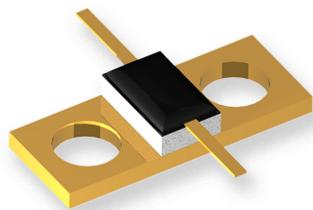


MEST²G-150-20

PIN DIODE SWITCH ELEMENT



(CM26)
non-hermetic
Bolt Down Package



Description

The MEST²G-150-020-CM26 is a Thermal to Ground Series diode Switch Element in a bolt down Copper package. This part is designed for reliable high power switch application up to 150 watts. Usable up to 10 GHz.

Features

- Low Insertion Loss: 0.25 dB typical at 2.0 GHz
0.40 dB typical at 6.0 GHz
- Medium Isolation: 21 dB typical at 2.0 GHz
12 dB typical at 6.0 GHz
- High Power Handling 150 watts

Maximum Ratings

RATING	LIMITS	UNITS
V_R	500	V
I_{FDC}	250	mA
θ_{JC}	8	°C/W
T_J	-40 to +175	°C
T_{STG}	-55 to +150	°C
T_{SOLDER}	+260 °C per JEDEC STD-J-20C	

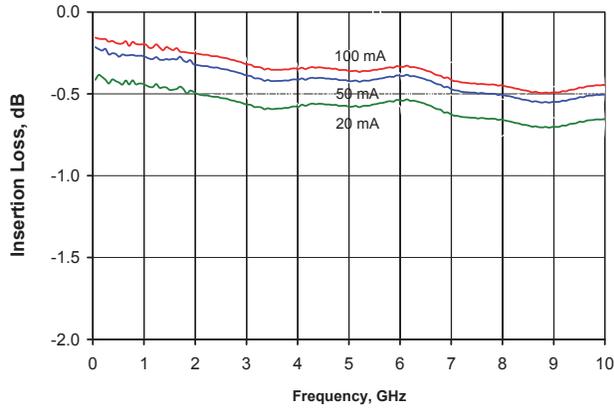
Electrical Characteristics, $T_c = +25\text{ °C}$

SYMBOL	TEST CONDITIONS			MIN	TYPICAL	MAX	UNITS
V_{BR}	$I_R = 10\ \mu\text{A}$			500	–	–	V
V_F	$I_F = 50\ \text{mA}$			–	–	1850	mV
R_S	$I_F = 100\ \text{mA}$	2 Diodes	$F = 500\ \text{MHz}$	–	1.8	–	Ω
C_j	$V_R = -50\ \text{V}$	1 Diode	$F = 1\ \text{MHz}$	–	0.19	–	pF
τ	$I_F = 10\ \text{mA}$	$I_R = 6\ \text{mA}$	measured at 50%	–	1800	–	ns
W	I-layer			–	80	–	um
IRL / ORL	$I_F = 100\ \text{mA}$	$F < 2.0\ \text{GHz}$		25	30	–	dB
		$F < 6.0\ \text{GHz}$		13	15	–	dB
I_L	$I_F = 100\ \text{mA}$	$F < 2.0\ \text{GHz}$		–	0.25	0.40	dB
		$F < 6.0\ \text{GHz}$		–	0.40	0.60	dB
I_S	$V_R = -10\ \text{V}$	$F < 2.0\ \text{GHz}$		18.0	21	–	dB
		$F < 6.0\ \text{GHz}$		10.0	12.0	–	dB

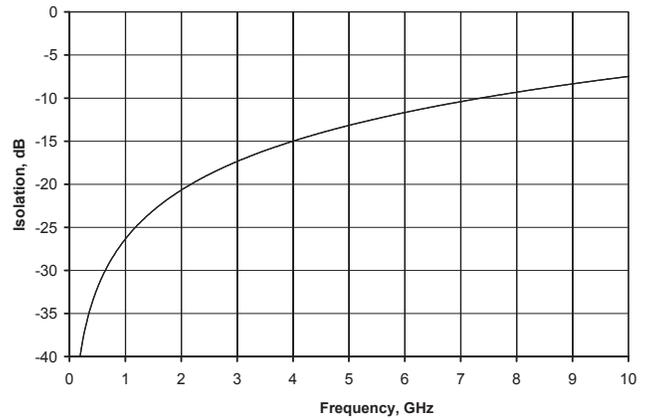


Typical RF Performance at 25° C Ambient, -10 dBm Small Signal

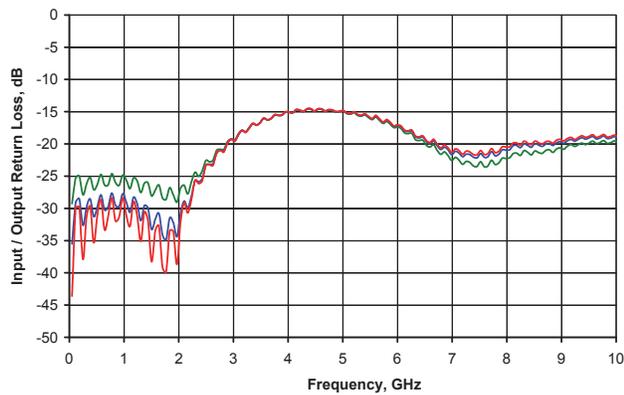
Insertion Loss



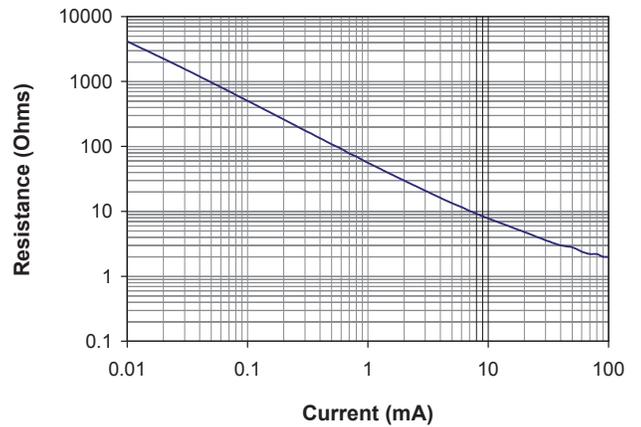
Isolation



Input Return Loss



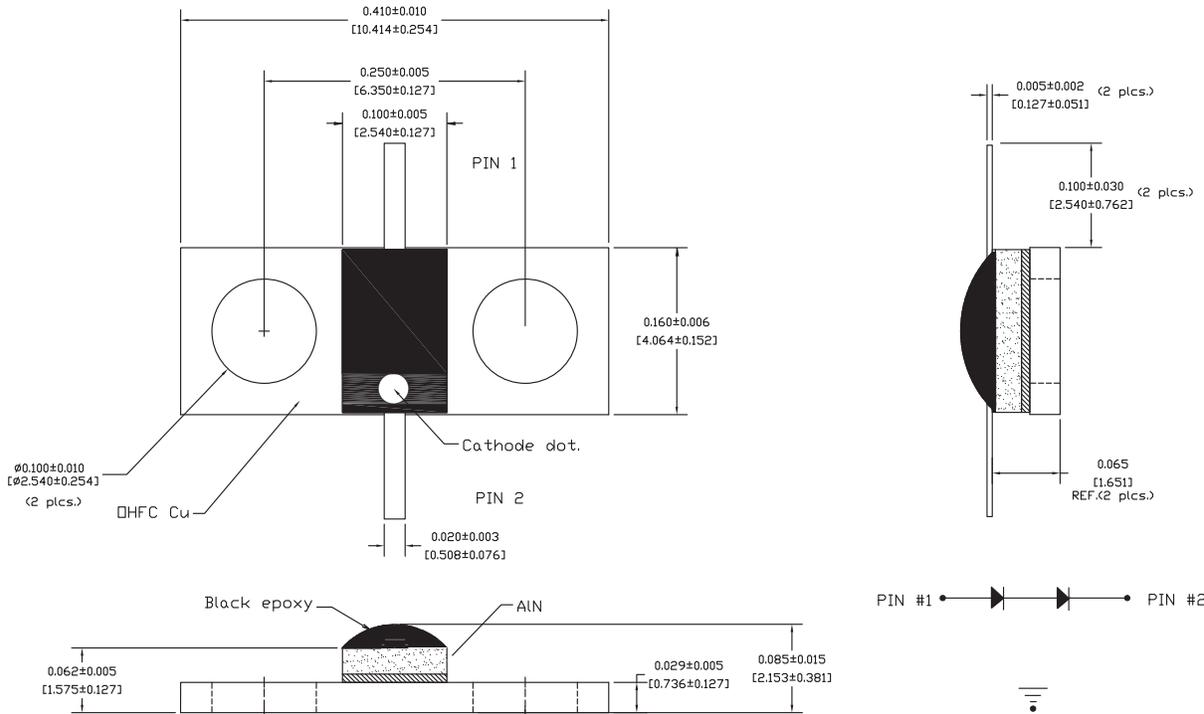
Resistance vs Bias Current, 500 MHz For Two Diodes in Series



MEST²G-150-20



Package Outline (CM26)



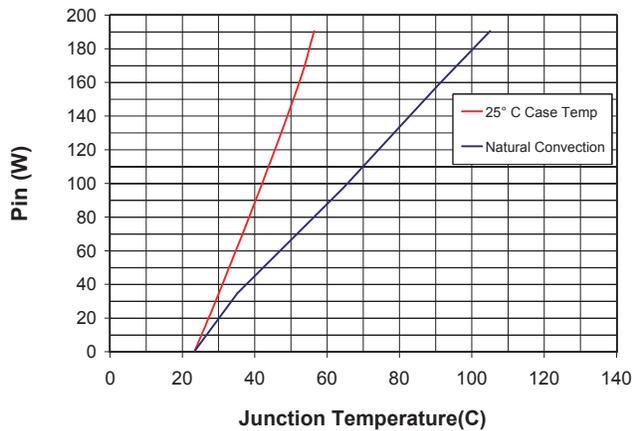
NOTES:

Finishes:

1. 50µ" Min. of Gold over 50µ" Min. of Nickel.

Dimensions in mils [mm]

Junction Temperature vs Input Power Mounted on Heat Sink 25°C Ambient, 1.3 GHz



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