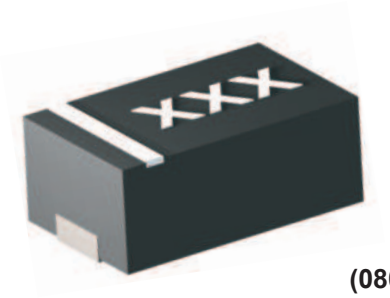
MSWSE-050-17

Silicon PIN Diode Switch Element



(0805P)
non-hermetic

Description

The MSWSE-050-17 is a PIN diode SPST switch element designed for medium incident power applications, up to 40W C.W. It has low insertion loss.

Features

- Broadband performance up to 3.0 GHz
- Low Insertion Loss
- Cost effective choice for switch applications

Maximum Ratings

RATING	LIMITS	UNITS
V_R	500	V
I_F	500	mA
θ_{JC}	10	°C / W
T_J	+175	°C
T_{STG}	-55 to +150	°C
T_{SOLDER}	+260 °C per JEDEC STD-J-20C	

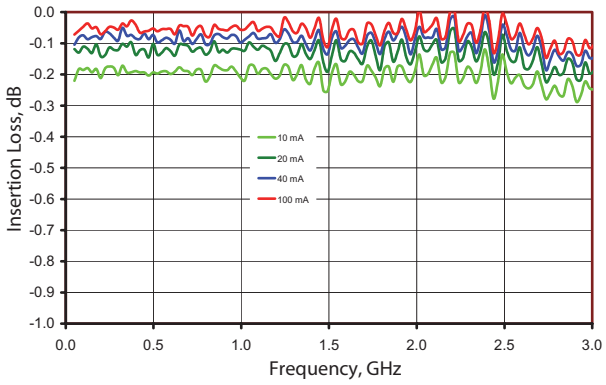
Electrical Characteristics, T_C = +25 °C

SYMBOL	TEST CONDITIONS			MIN	TYPICAL	MAX	UNITS
V_{BR}	I_R = 10 µA			500	–	–	V
V_F	I_F = 50 mA			–	850	950	mV
C_T	V_R = 50 V		F = 1 MHz	–	0.20	0.25	pF
R_S	I_F = 100 mA		F = 100 MHz	–	0.75	–	Ω
τ	I_F = 10 mA	I_R = 6 mA	measured at 50%	–	1600	–	ns
W	I-Layer			–	80	–	µm
I_L	I_F = 50 mA		F < 0.5 GHz	–	0.06	0.2	dB
			F < 2.0 GHz	–	0.1	0.2	dB
IRL / ORL	I_F = 50 mA		F < 0.5 GHz	25	33	–	dB
			F < 2.0 GHz	20	25	–	dB
I_{SO}	V_R = 50 V		F < 0.5 GHz	22	24	–	dB
			F < 2.0 GHz	20	12	–	dB

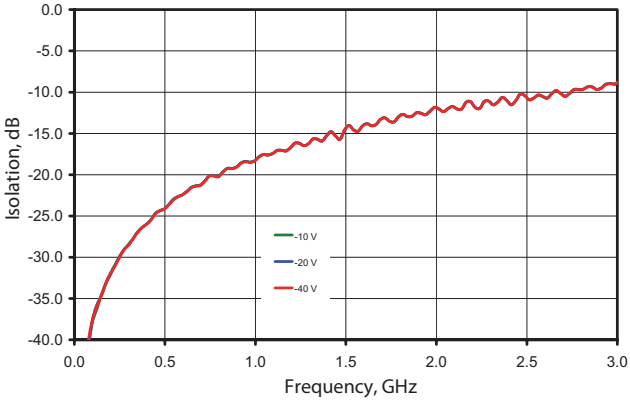
AEROFLEX METELICS

Revision Date: 2/21/2014

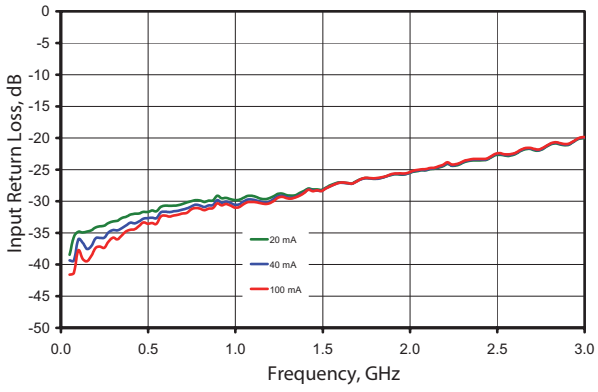
Insertion Loss



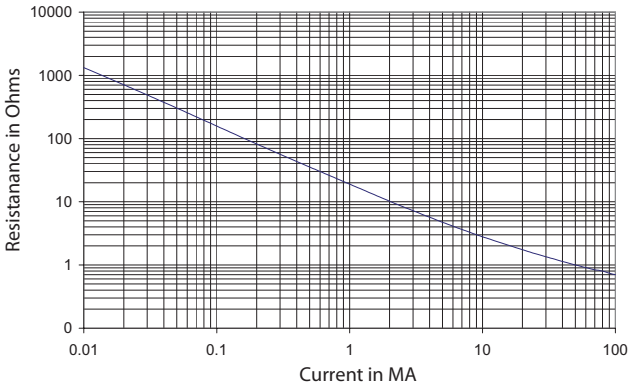
Isolation



Input Return Loss

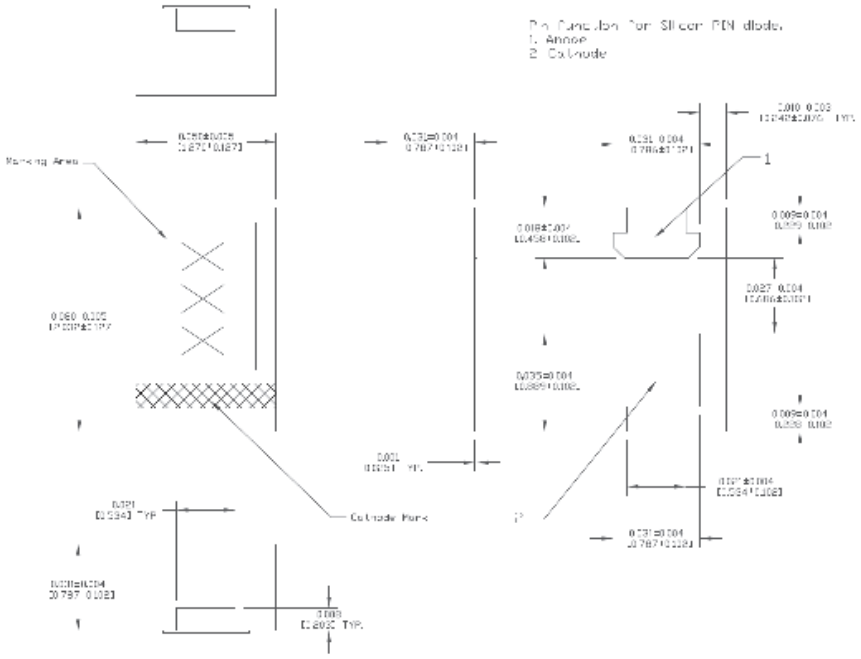


Series Resistance vs. Current



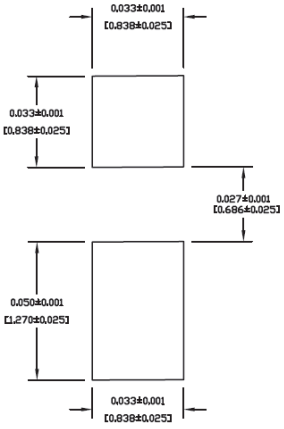
MSWSE-050-17

Package Outline

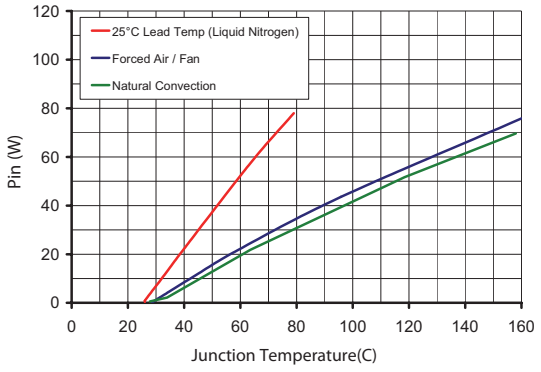


Dimensions: inches [mm] Finish: 300 micro inches matte Tin, annealed 1 hour 150° C

Printed Circuit Board Layout



Junction Temperature vs Power
20 Mil PCB Mounted on Heat Sink
25°C Ambient 1.3 GHz



Revision Date: 2/21/2014

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