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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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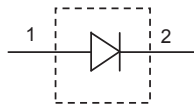
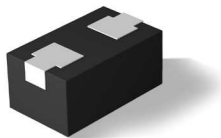
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MSWSE-010-15S

Silicon PIN Diode Switch Element



0402
(Molded Plastic DFN Package)

Description

The MSWSE-010-15S is a PIN diode switch element designed for medium incident power applications, up to 10 W C.W. It has low insertion loss and medium isolation below 3.0 GHz.

Features

- SMALL SIZE (40 mils X 24 mils)
- Broadband performance up to 3.0 GHz
- Supports up to 10 watts power
- Low insertion loss 0.15 dB typical up to 3.0 GHz
- Cost effective choice for switch applications

Maximum Ratings

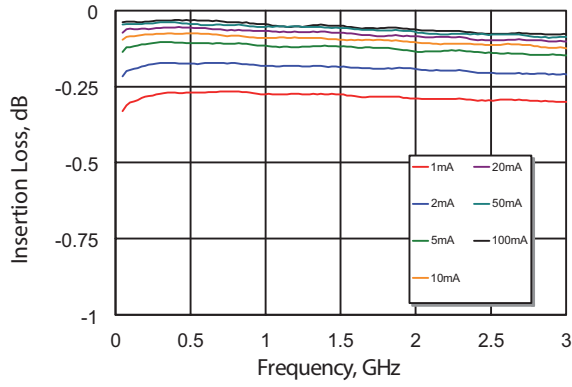
RATING	LIMITS	UNITS
V_R	200	V
I_F	200	mA
θ_{JC}	35	°C/W
T_J	+175	°C
T_{STG}	-55 to +150	°C
T_{SOLDER}	+260 °C per JEDEC J-STD-20C	

Electrical Specifications, $T_A = +25\text{ °C}$

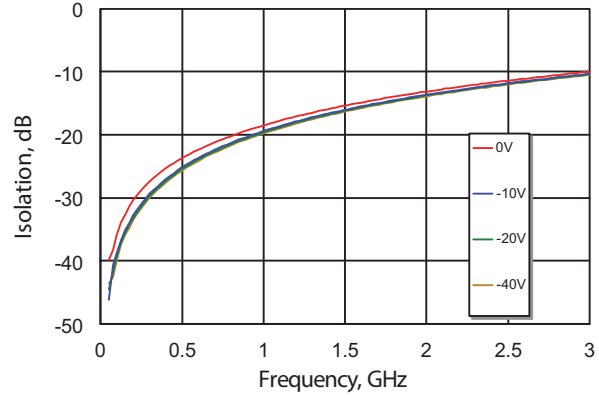
SYMBOL	TEST CONDITIONS	MIN	TYPICAL	MAX	UNITS	
V_{BR}	$I_R = 10\ \mu\text{A}$	200	–	–	V	
V_F	$I_F = 50\ \text{mA}$	–	870	950	mV	
C_J	$V_R = -50\ \text{V}$ $F = 1\ \text{MHz}$	–	0.13	–	pF	
C_T	$V_R = -50\ \text{V}$ $F = 1\ \text{MHz}$	–	0.17	0.22	pF	
R_S	$I_F = 30\ \text{mA}$ $F = 500\ \text{MHz}$	–	0.8	1.0	Ω	
	$I_F = 100\ \text{mA}$ $F = 500\ \text{MHz}$	–	0.6	0.8	Ω	
τ	$I_F = 10\ \text{mA}$ $I_R = 6\ \text{mA}$ measured at 50%	–	650	900	ns	
W	I-Layer	–	40	–	μm	
IL	$I_F = 50\ \text{mA}$	$F < 1.0\ \text{GHz}$	–	0.05	–	dB
		$F < 2.0\ \text{GHz}$	–	0.10	0.25	dB
IRL	$I_F = 50\ \text{mA}$	$F < 1.0\ \text{GHz}$	25	30	–	dB
		$F < 2.0\ \text{GHz}$	–	25	–	dB
Iso	$V_R = 50\ \text{V}$	$F < 1.0\ \text{GHz}$	15	20	–	dB
		$F < 2.0\ \text{GHz}$	–	15	–	dB



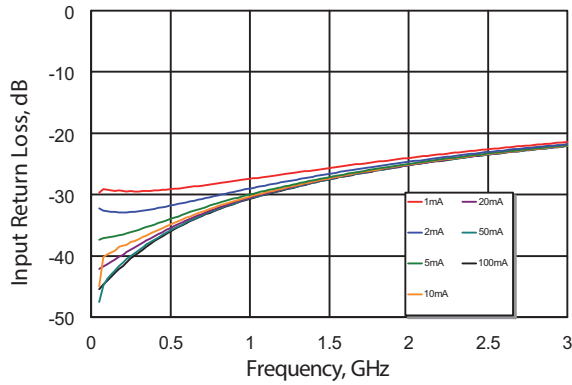
Insertion Loss



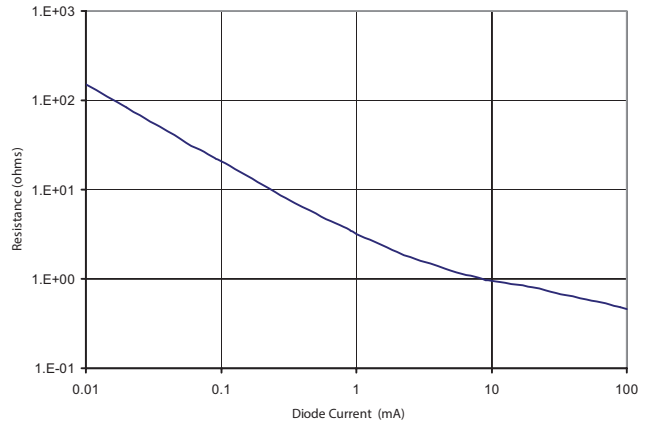
Isolation



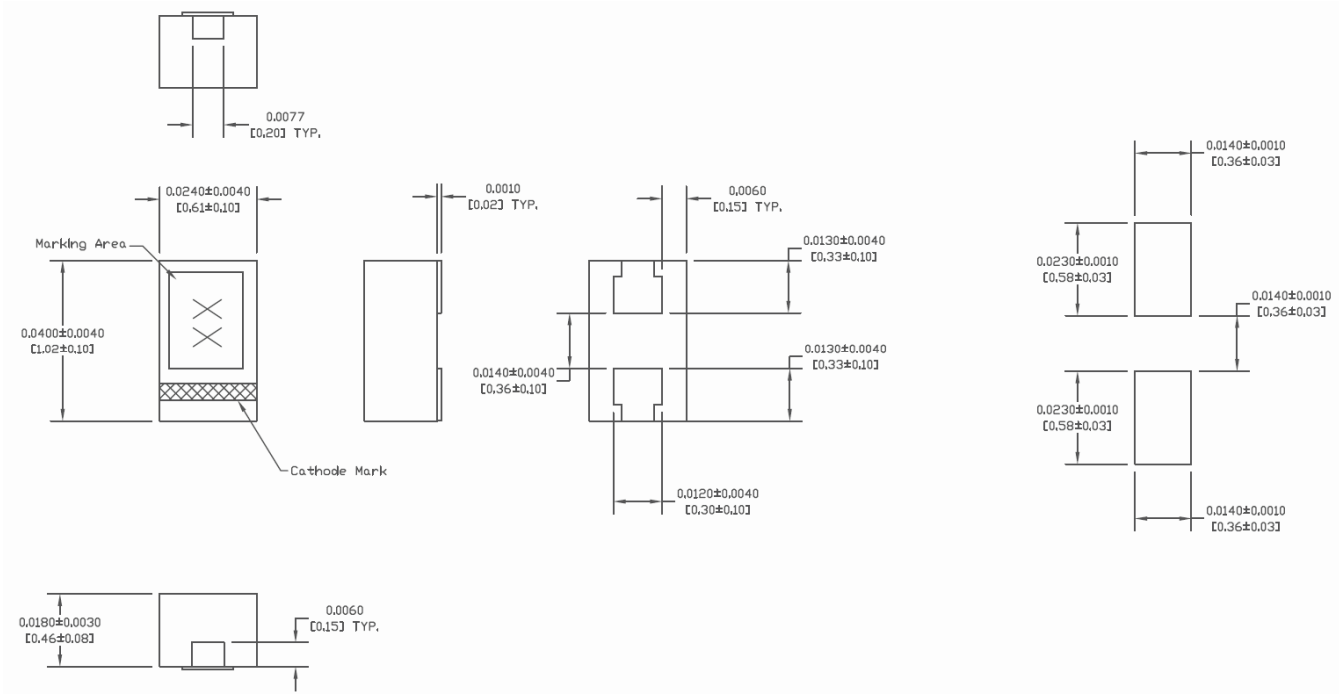
Input Return Loss



Series Resistance vs. Current



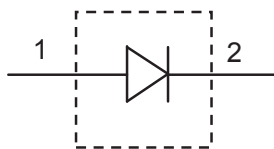
Package Outline (0402) and PCB Layout



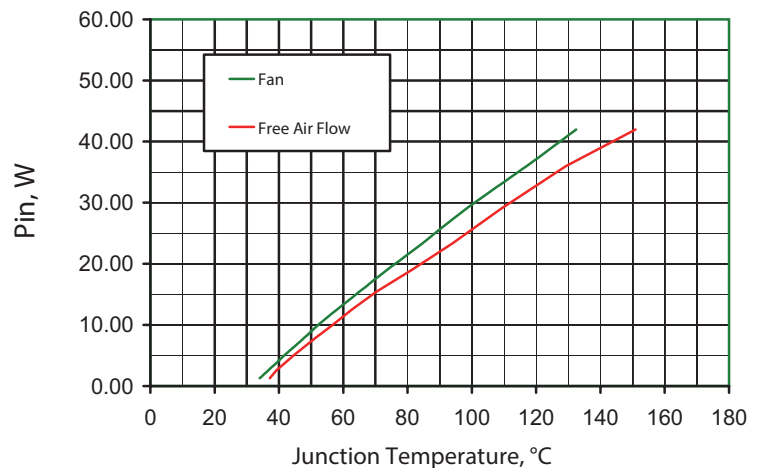
Dimensions: inches [mm]

Finish: 300 micro inches matte Tin, annealed 1 hour at 150° C

Electrical Schematic



Junction Temperature vs Pin Mounted on Heatsink 25°C Amb 1.3 GHz



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