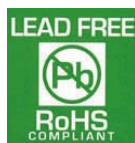


MSAT-P25

PIN Diode Attenuator Shunt Element



(2012)
Plastic Molded DFN

Description

A broadband, High Linearity medium power shunt PIN Attenuator element 1.9 X 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 range.

Features

- Low Distortion Harmonics at 85 dBc Typical
- Broadband performance, beyond 10 GHz
- Low Insertion loss & high attenuation range, 27 dB

Electrical Specifications, $T_c = +25\text{ }^\circ\text{C}$

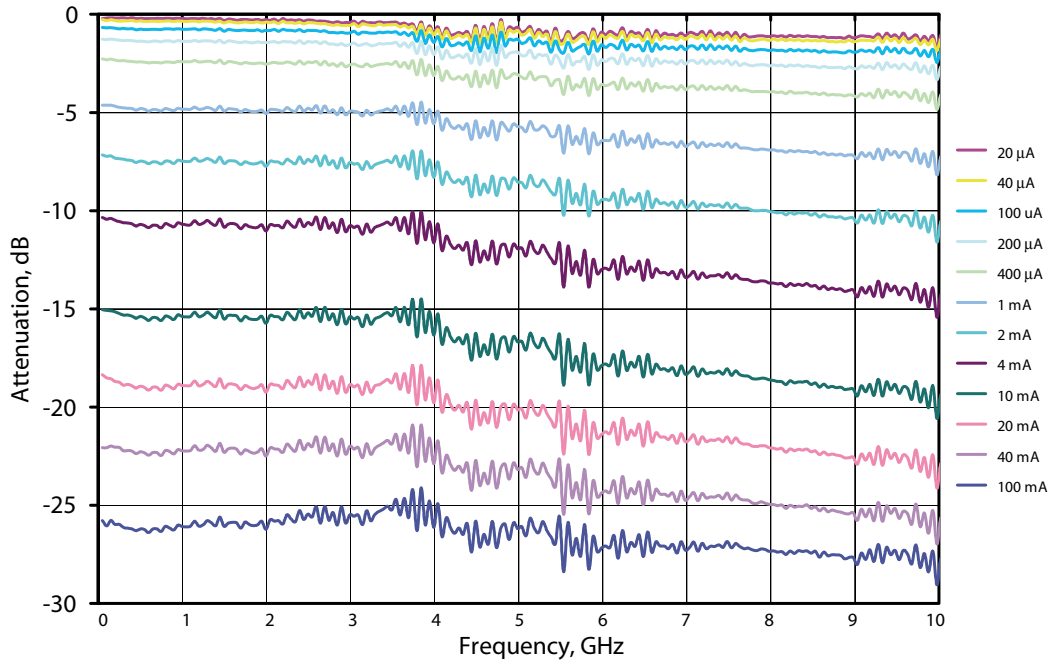
SYMBOL	TEST CONDITIONS			MIN	TYPICAL	MAX	UNITS
V_{BR}	$I_R = 10\ \mu\text{A}$			200	–	–	V
L_t	$I_F = 10\ \text{mA}$	$I_R = 6\ \text{mA}$	10% / 90%	2000	3000	5000	ns
$R_s\ \text{min}$	$I = -100\ \text{mA}$		$F = 500\ \text{MHz}$	–	1.5	2.5	
$R_s\ \text{High}$	$I = -10\ \mu\text{A}$		$F = 500\ \text{MHz}$	1200	2200	3000	
$R_s\ \text{Low}$	$I = -50\ \text{mA}$		$F = 500\ \text{MHz}$	20	30	40	
			$F < 10.0\ \text{GHz}$	28	35	–	dB

Absolute Maximum Ratings

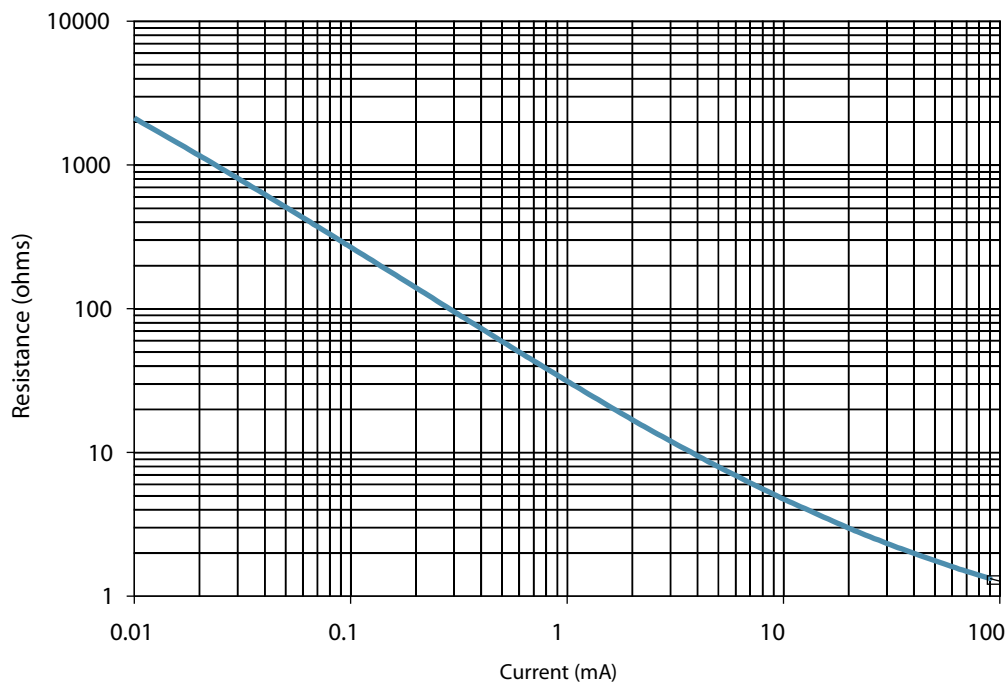
RATING	LIMITS	UNITS
V_R	200	V
I_F	200	mA
θ_{JC}	20	$^\circ\text{C}/\text{W}$
T_J	+175	$^\circ\text{C}$
T_{STG}	-65 to +125	$^\circ\text{C}$
T_{SOLDER}	+260 $^\circ\text{C}$ per JEDEC J-STD-20C	



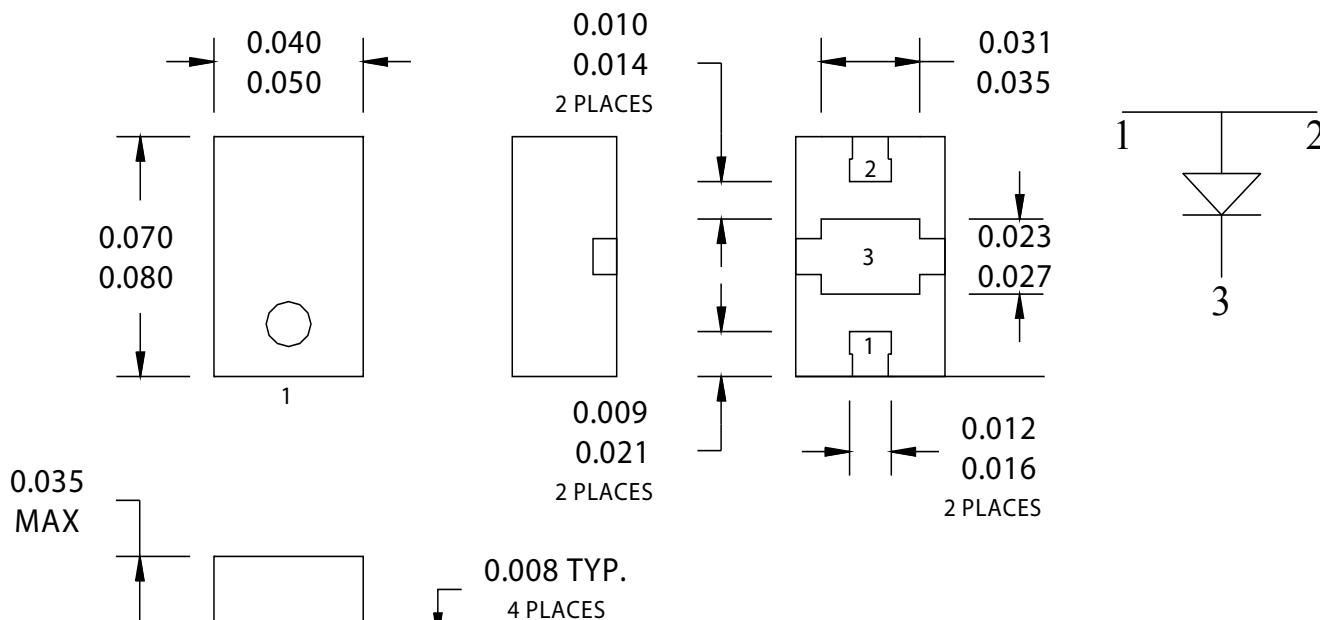
RF Performance Attenuation vs Current



RF Performance Isolation



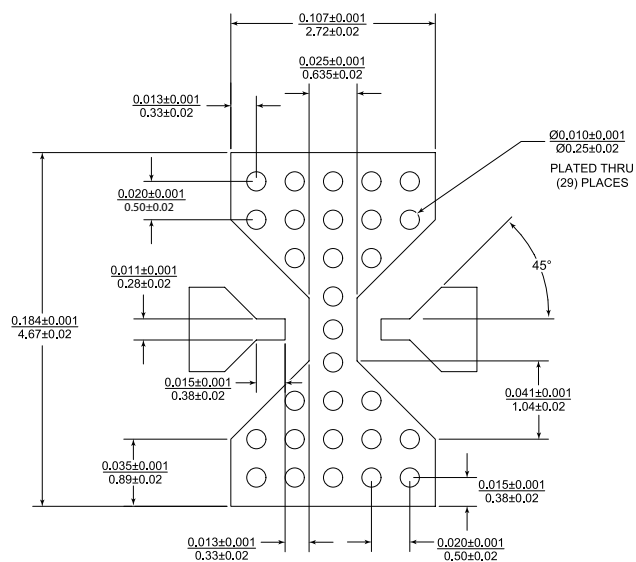
Package Outline (2012) and Electrical Schematic



NOTES

1. DIMENSIONS DO NOT INCLUDE MOLD FLASHING
2. BURRS AND DUMBAR SHALL NOT EXCEED 0.002" PER SURFACE
3. LEAD CO-PLANARITY IS 0.003" MAXIMUM

PCB Layout



Aeroflex / Metelics Inc.

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

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

ISO 9001:2008

Sales

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

www.aeroflex.com/microwave www.aeroflex.com/Metelics

Aeroflex / Metelics, Inc. reserves the right to make changes to any products and services herein at any time without notice. Consult Aeroflex or an authorized sales representative to verify that the information in this data sheet is current before using this product. Aeroflex does not assume any responsibility or liability arising out of the application or use of any product or service described herein, except as expressly agreed to in writing by Aeroflex; nor does the purchase, lease, or use of a product or service from Aeroflex convey a license under any patent rights, copyrights, trademark rights, or any other of the intellectual rights of Aeroflex or of third parties.

Copyright 2009 Aeroflex / Metelics. All rights reserved.



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.