

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

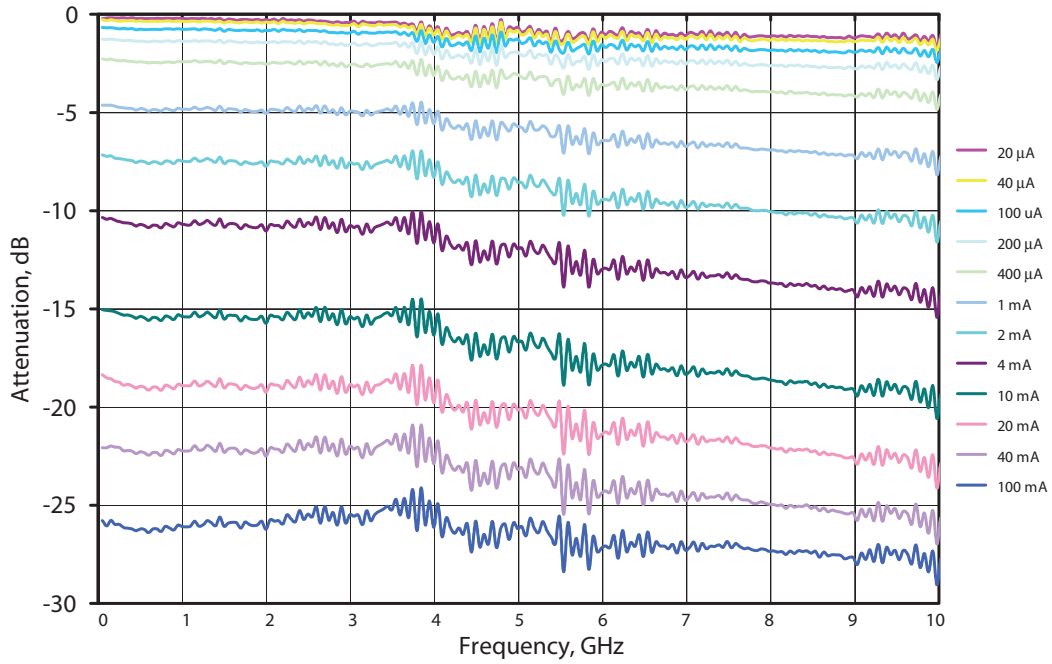
SYMBOL	TEST CONDITIONS			MIN	TYPICAL	MAX	UNITS
V_{BR}	$I_R = 10\text{ }\mu\text{A}$			200	–	–	V
τ	IF = 10 mA	IR = 6 mA	10% / 90%	2000	3000	5000	ns
Rs min	I = 100 mA		F = 500 MHz	–	1.5	2.5	Ω
Rs High	I = 10 μA		F = 500 MHz	1200	2200	3000	Ω
Rs Low	I = 1 mA		F = 500 MHz	20	30	40	Ω
ATTEN	I = 100 mA		F \leq 10.0 GHz	20	30	–	dB

Absolute Maximum Ratings

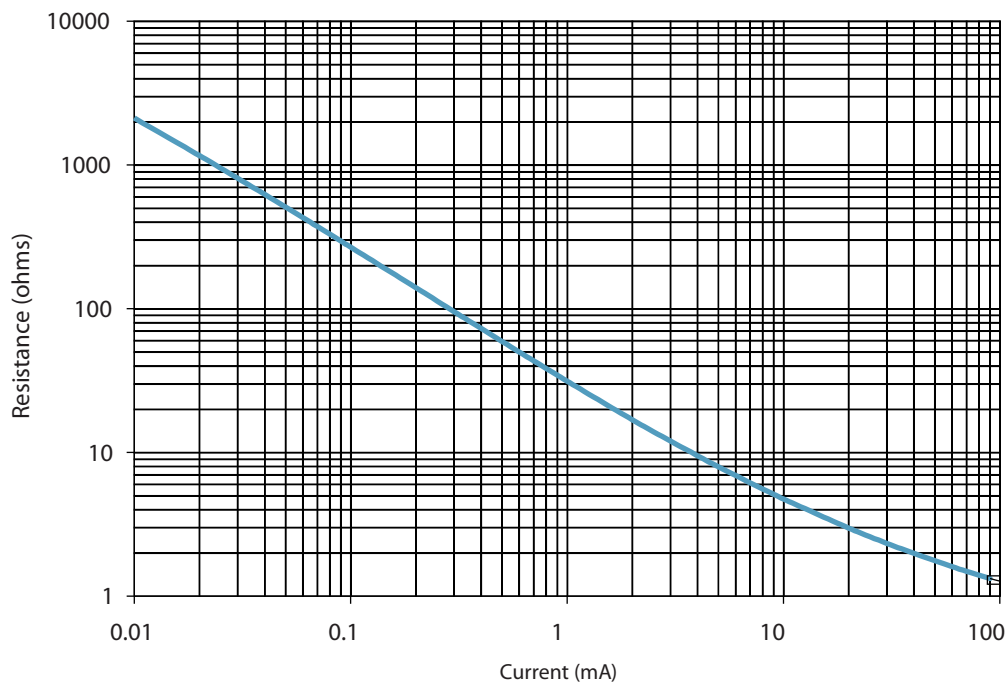
RATING	LIMITS	UNITS
V_R	200	V
I_F	200	mA
θ_{JC}	20	$^\circ\text{C/W}$
T_J	+175	$^\circ\text{C}$
T_{STG}	-65 to +125	$^\circ\text{C}$
T_{SOLDER}	+260 $^\circ\text{C}$ per JEDEC J-STD-20C	



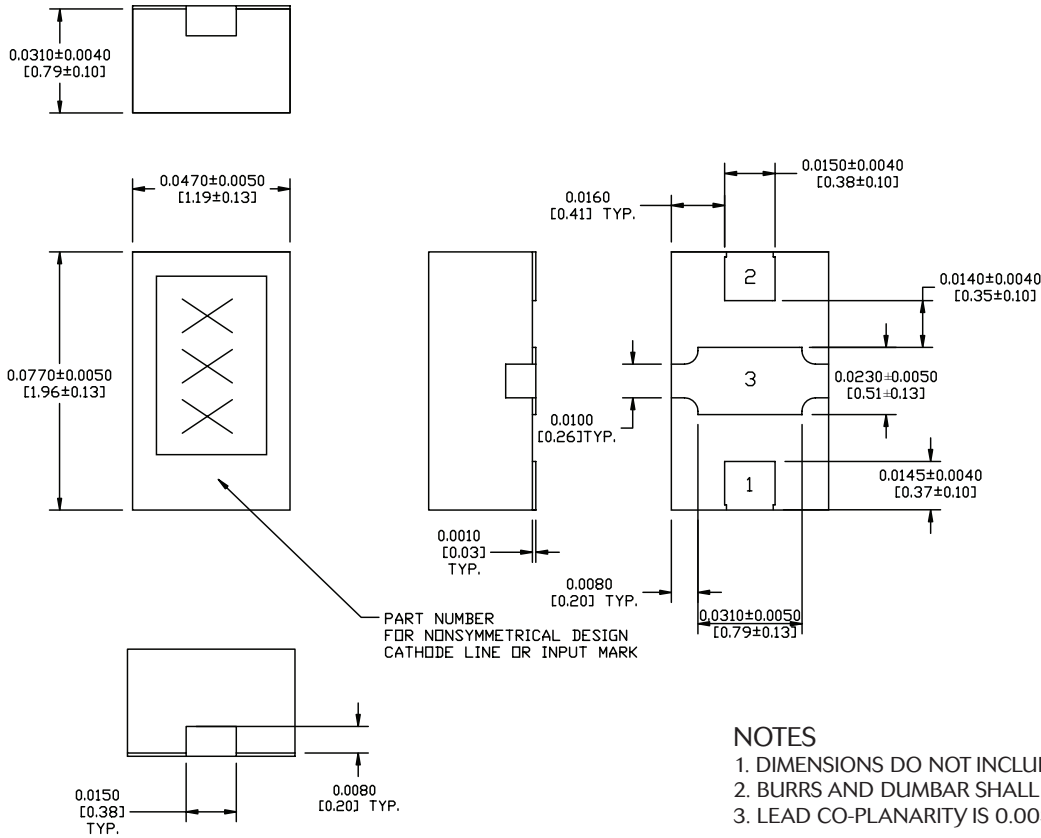
RF Performance Attenuation vs Current



RF Performance Isolation



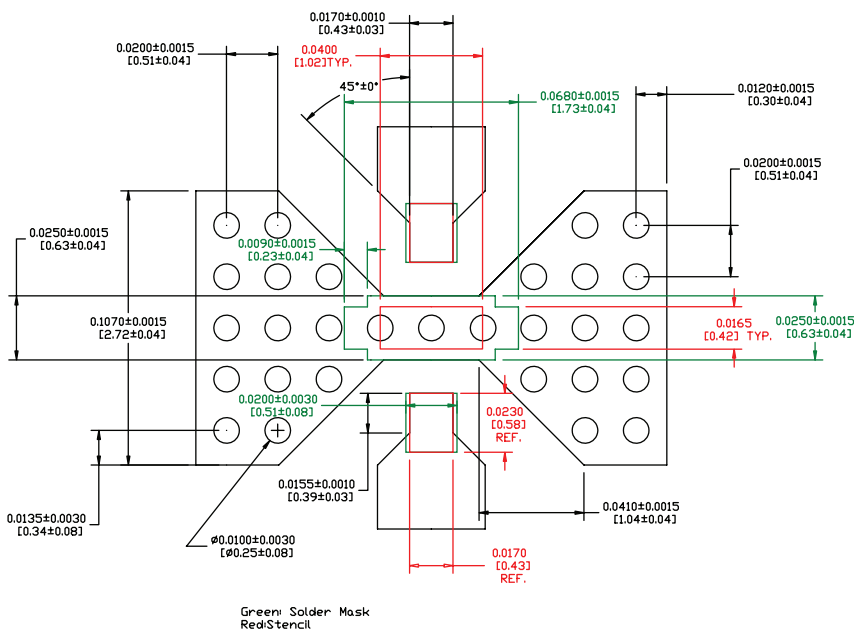
Package Outline (2012) and Electrical Schematic



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



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