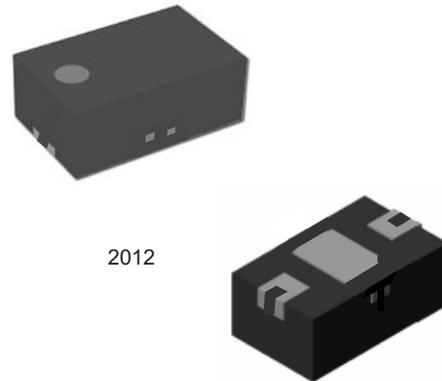


Features

- Low Distortion Harmonics @ 85 dBc
- Broadband Performance, >10 GHz
- Low Insertion Loss & High Attenuation, 27 dB
- RoHS* Compliant

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.



Electrical Specifications: $T_A = +25^\circ\text{C}$ (measured on evaluation board)

Parameter	Test Conditions	Units	Min.	Typ.	Max.
Breakdown Voltage (V_{BR})	$I_R = 10 \mu\text{A}$	V	200	—	—
Lifetime (L_T)	$I_F = 10 \text{ mA}$, $I_R = 6 \text{ mA}$, 10% / 90%	ns	2000	3000	5000
Minimum Series Resistance (R_S)	$I = -100 \text{ mA}$, 500 MHz	Ω	—	1.5	2.5
High Series Resistance (R_S)	$I = -10 \mu\text{A}$, 500 MHz	Ω	1200	2200	3000
Low Series Resistance (R_S)	$I = -50 \text{ mA}$, 500 MHz $I = -50 \text{ mA}$, <10 GHz	Ω	20 28	30 35	40 —

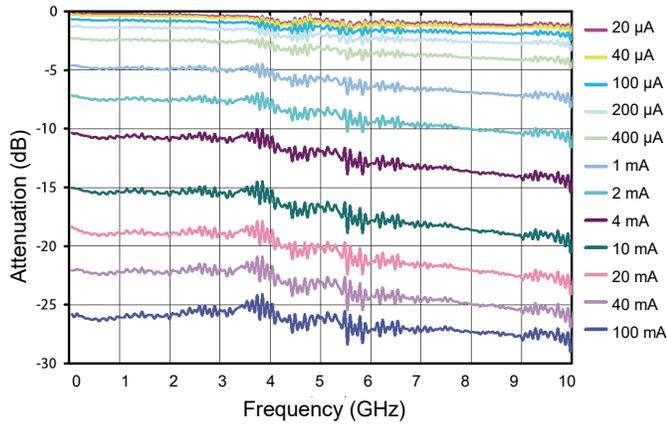
Absolute Maximum Ratings

Parameter	Absolute Maximum
Forward Current (I_F)	200 mA
Reverse Voltage (V_R)	200 V
Thermal Resistance (θ_{JC})	+20°C/W
Junction Temperature (T_J)	+175°C
Storage Temperature (T_{STG})	-65°C to +125°C
Assembly Temperature (T_{SOLDER})	+260°C

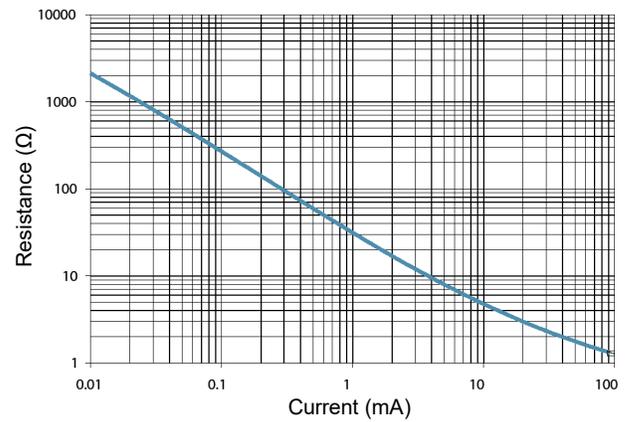
* Restrictions on Hazardous Substances, compliant to current RoHS EU directive.

Performance Curves

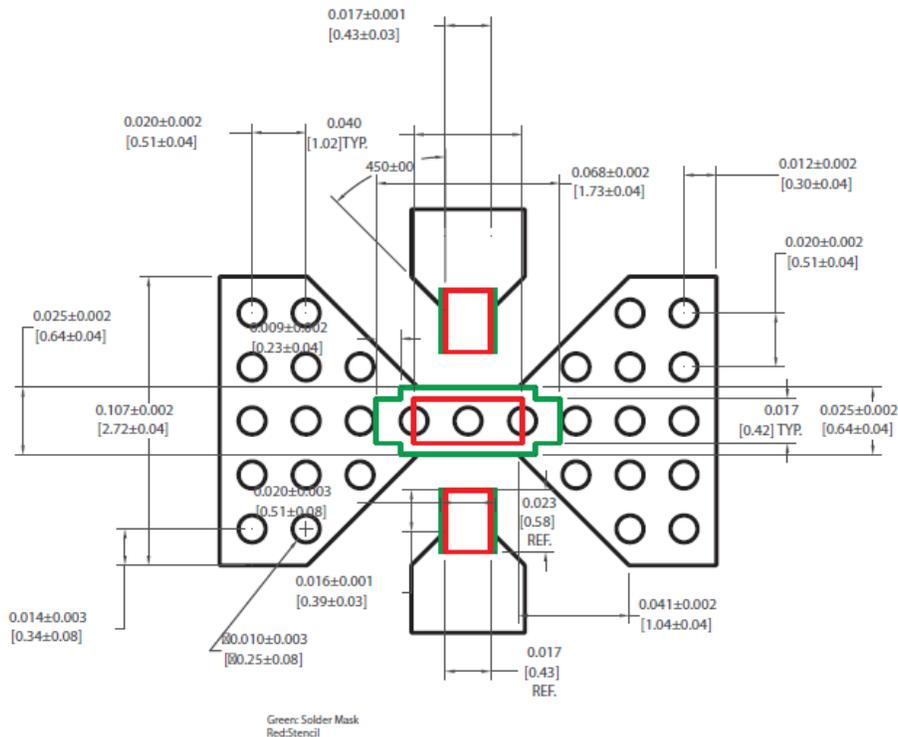
Attenuation vs. Current



Isolation

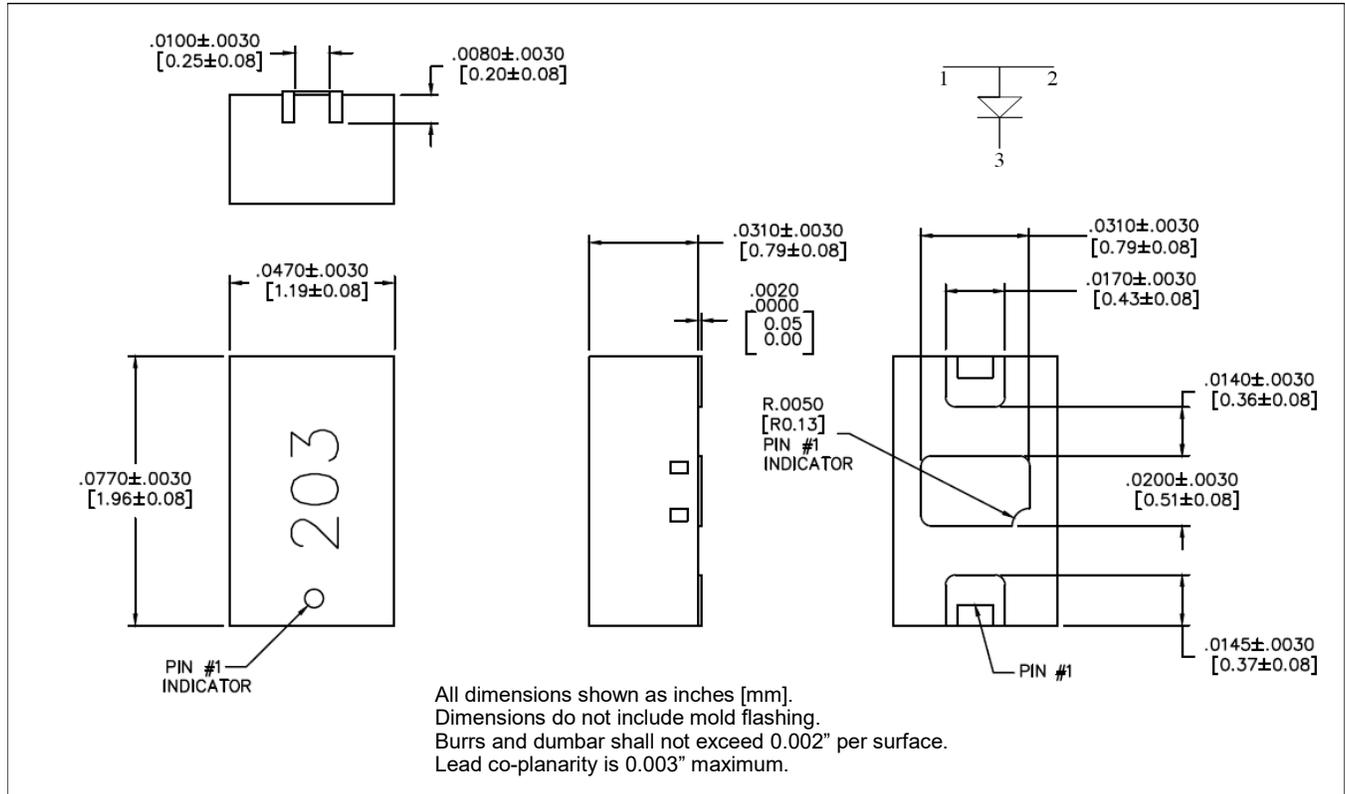


Printed Circuit Board Layout (Soldering Footprint)^{3,4,5,6,7}



3. Unless otherwise specified: Tolerance ± 0.10 mm
4. If possible, use copper filled vias underneath pin 3 for better thermals; otherwise, use vias that are plated through, filled and plated over.
5. Solder mask should provide a 60 μ m clearance between copper pad and soldermask. Rounded package pads should have matching rounded solder mask openings.
6. Use circles or squares for thermal land stencil such that there is only 50% to 80% solder paste coverage
7. 20 mils Rogers RO4350B with 1 oz. copper clad and 10 mil diameter plated thru vias on 20 mil centers underneath package.

Package Outline (2012)



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