



High Frequency Resistors

R35-1209BB50R00FxxQC

Product Features

Case Size	Std. Resistance
1209	50Ω

Mechanical Dimensions

$L = 0.012'' \pm 0.001''$ (0.305mm $\pm$ 0.051mm)
 $W = 0.009'' \pm 0.001''$ (0.229mm $\pm$ 0.051mm)
 $H = 0.005'' \pm 0.001''$ (0.127mm $\pm$ 0.025mm)

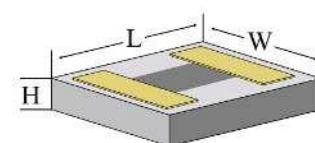


Style: 1 Recessed Pad

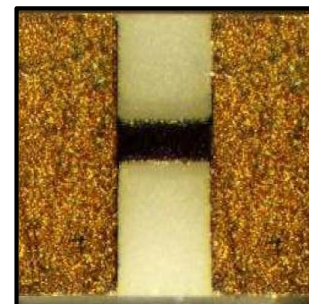
Specifications

Operating Frequency	DC to 67 GHz
Operating Temperature Range	-55°C to +150°C
Resistive Material	Tantalum Nitride (TaN)
Temperature Coefficient	± 150 ppm/°C standard
Resistance Tolerance	$\pm 1\%$ standard
Substrate	Alumina (Al ₂ O ₃) other substrates available
Metallization	A = Tantalum/Palladium/Gold (TaN/Pd/Au) R = Titanium/Platinum/Gold (Ti/Pt/Au)
Power Derating See Chart at Right	Full power up to 70°C Derated linearly to zero power at 150°C

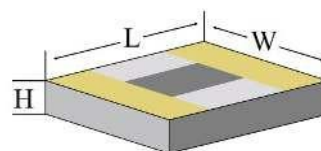
*All PPI Thin Film parts are Non-Magnetic



1% standard tolerance (other tolerances available)

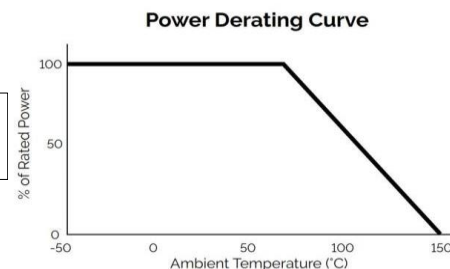
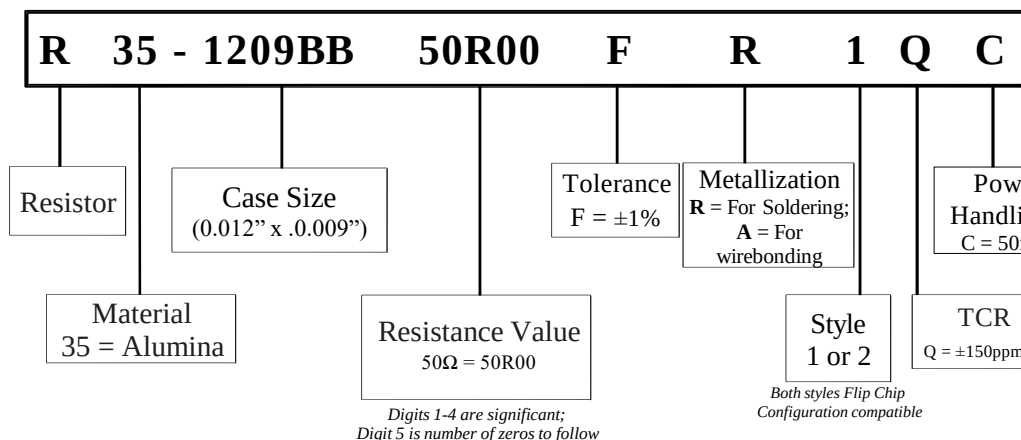


Style: 2 Full Pad



1% tolerance only

Part Numbering



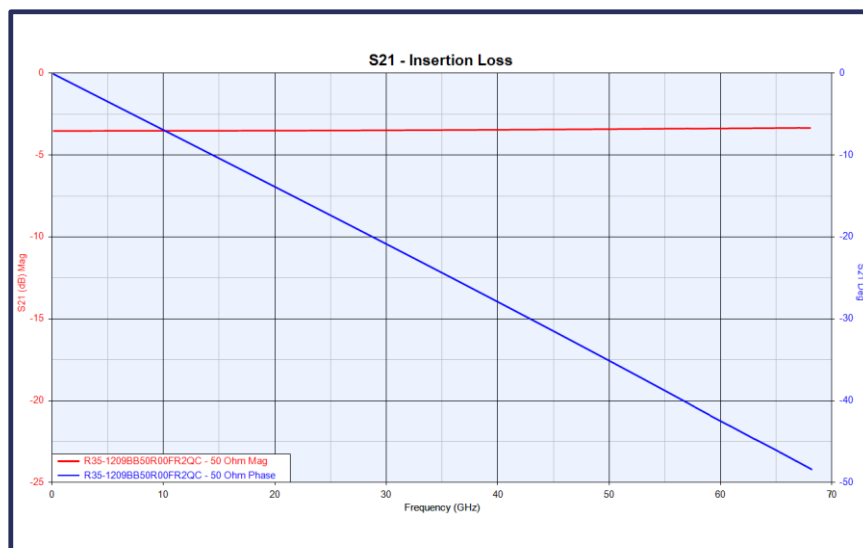


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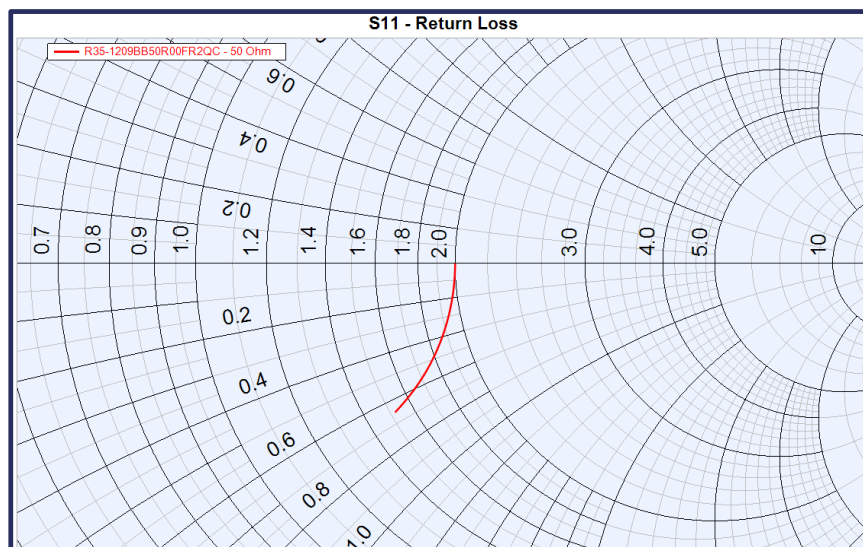
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Performance Curves - Insertion and Return Loss Charts

12 x 09 50 Ω Insertion Loss



12 x 09 50 Ω Return Loss



Simulated Test Conditions / Pad Dimensions / Dielectric

Modelithics calculated data for 50 Ohm and 100 Ohm resistors from 0.1 to 67.0 GHz on 4 mil Rogers 4350B, Dielectric constant = 4.15. The pad dimensions used to develop the datasheet plots were: Length = 4.0 (0.102), Width = 10.0 (0.254), Gap = 5.0 (0.127). Units in mil (mm). Reference planes were at the pad edges.

Packaging

Parts are available in Waffle Packs. Contact PPI for additional packaging options.