

Product Features

Case Size	Std. Resistance
1209	50Ω

Mechanical Dimensions

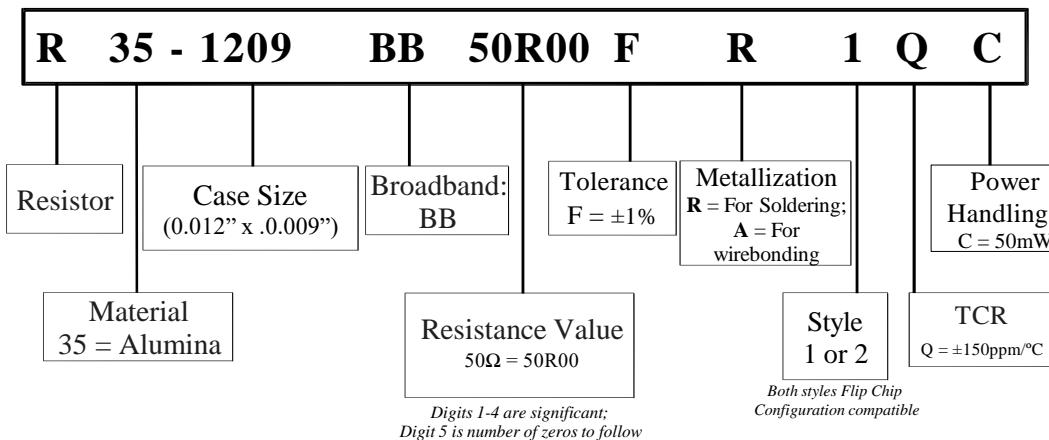
L = 0.012" ± 0.001" (0.305mm ± 0.051mm)
 W = 0.009" ± 0.001" (0.229mm ± 0.051mm)
 H = 0.005" ± 0.001" (0.127mm ± 0.025mm)

Specifications

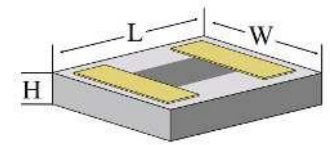
Operating Frequency	DC to 67 GHz
Operating Temperature Range	-55°C to +150°C
Resistive Material	Tantalum Nitride (TaN)
Temperature Coefficient	±150 ppm/°C standard
Resistance Tolerance	±1% standard
Substrate	Alumina (Al ₂ O ₃) other substrates available
Metallization	A = Tantalum/Palladium/Gold (TaN/Pd/Au)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

*All PPI Thin Film parts are Non-Magnetic

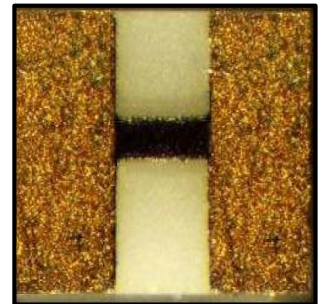
Part Numbering



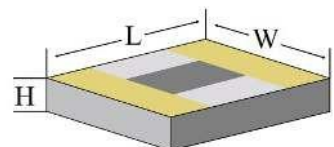
Style: 1 Recessed Pad



1% standard tolerance (other tolerances available)

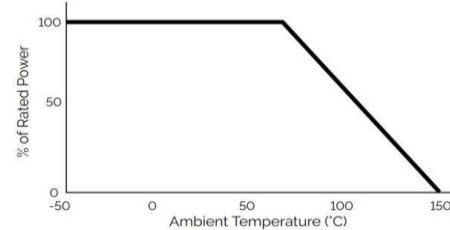


Style: 2 Full Pad



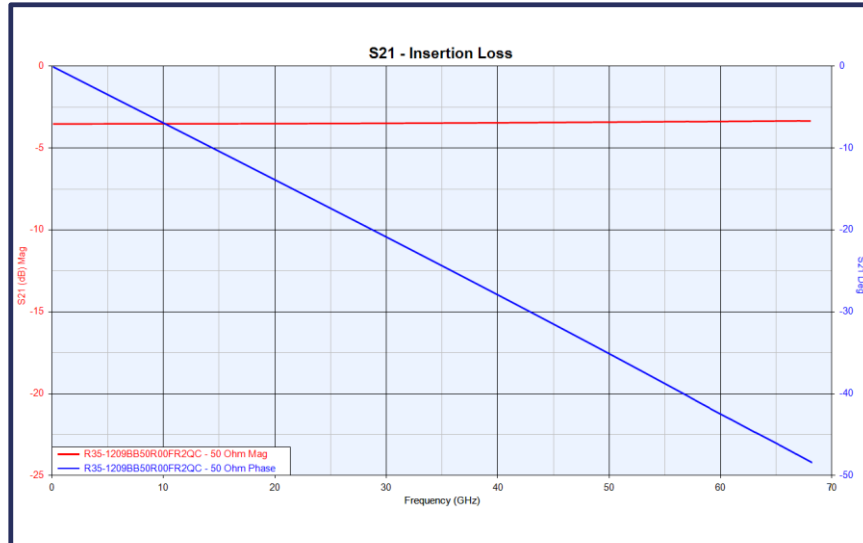
1% tolerance only

Power Derating Curve

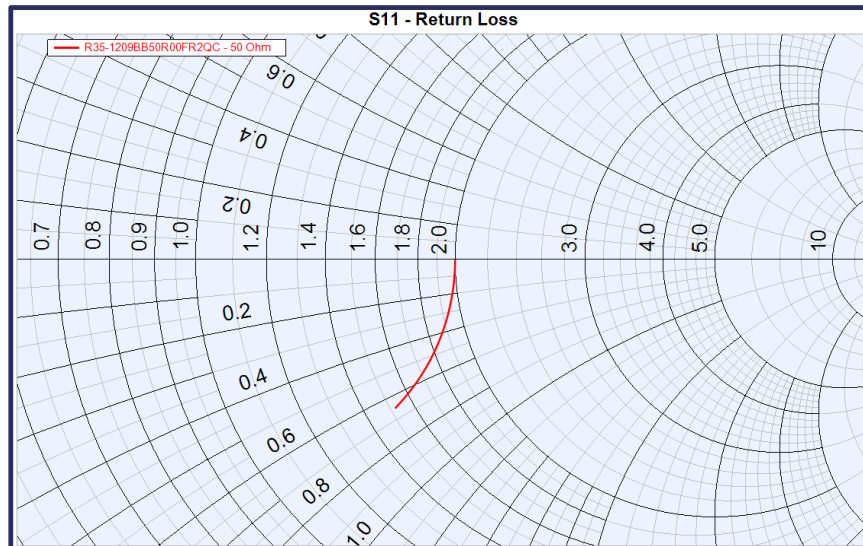


Performance Curves - Insertion and Return Loss Charts

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 delivered in Waffle Packs.
Contact PPI for additional packaging options.