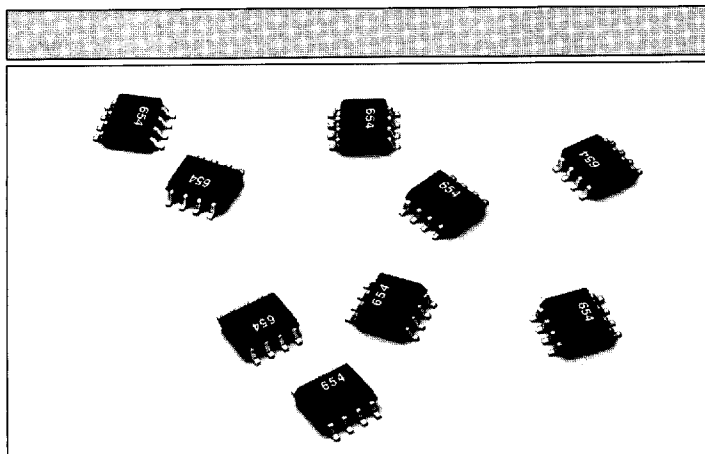


Model 654 RF Attenuator Surface Mount Precision Thin Film Small Outline Resistor Network

T-62-05



Electrical

Impedance	50 Ohm
Operating Temperature Range	-55°C to +125°C
Resistance Volto	≈0
Temperature Coefficient	±25ppm/°C
Operating Voltage, Maximum	100V dc or √PR
Insulation Resistance, Minimum	10,000 Megohms
Noise, Maximum (Mil-Std-202, Method 308)	-40dB

Environmental

Thermal Shock plus Power Conditioning	ΔR 0.25%
Short Time Overload	ΔR 0.1%
Terminal Strength	ΔR 0.1%
Moisture Resistance	ΔR 0.2%
Mechanical Shock	ΔR 0.25%
Vibration	ΔR 0.25%
Low Temperature Storage	ΔR 0.1%
High Temperature Exposure	ΔR 0.1%
Load Life, 1,000 Hours	ΔR 0.1%
Resistance to Solder Heat	ΔR 0.1%
Dielectric Withstanding Voltage	100V for 1 minute
Temperature Exposure, Maximum	215°C for 3 minutes
Marking Permanency	per Paragraph 4.6.7
Lead Solderability	per Paragraph 4.6.6
Flammability	UL-94V-0 Rated
Storage	-65°C to +125°C

Specifications subject to change without notice.

Performance

Frequency	DC to 500MHZ	500MHz to 1GHz
VSWR	1.05 Max.	1.10 Max.
Attenuation Accuracy	±0.1dB Max.	±0.2dB
Frequency Flatness	±0.1dB Max.	±0.2dB Max.
Phase Shift	±10° Max.	±20° Max.

Mechanical

Lead Plating	85/15 Tin Lead
Lead Material	Copper Alloy
Lead Configuration	Gull Wing
Lead Coplanarity	0.004" (0.102mm)
Substrate Material	Alumina
Resistor Material	Nichrome
Body Material	Molded Epoxy

Standard Attenuation Values*

2dB	6dB	12dB
3dB	8dB	14dB
4dB	10dB	16dB

Applicable Documents

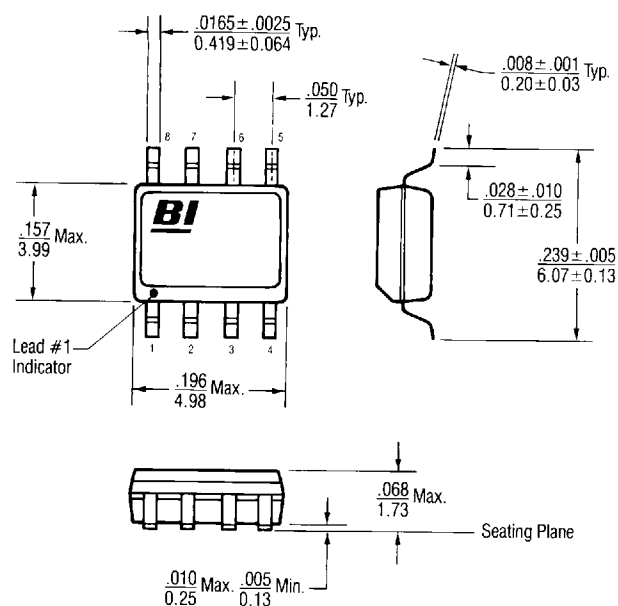
MIL-R-83401 — Resistor Networks, Fixed, Film, General Specifications
MIL-STD-202 — Test Methods for Electronics and Electrical Component Parts

* Consult Factory for non-standard values.

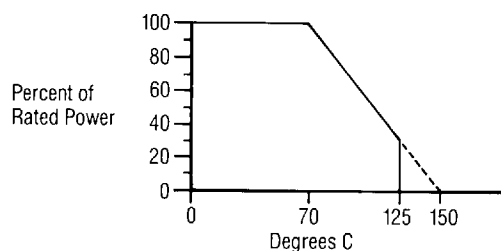
Beckman Industrial™

Affiliate of Emerson Electric Co.

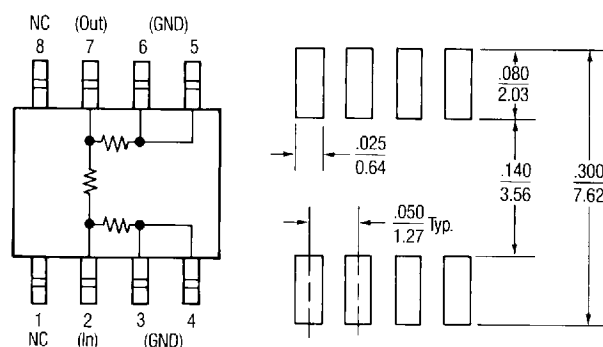
Networks

Outline Dimensions

Notes:

1. Leads are within .005/0.13 of true position
2. Maximum allowable mold excursion = 0.006"

Power Derating Curve

Power (Watts) Dissipation at 70°C

Model	Package
654	.4

Schematic/Solder Pad Layout

Ordering Information

Model Series **654** **2dB** Attenuation Value In Decibels

Packaging
Standard: Magazine

All units oriented with lead #1 to the same side

Magazine: Capacity = 100 units (8 Pin)

Option: Embossed Tape & Reel

Typical Part Marking
