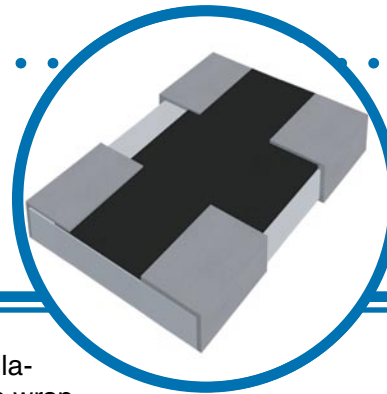


High Frequency Surface Mount Attenuators



PAT0510 Series

- Operation to 10GHz
- Surface mount package
- Wrap-around terminal construction

The PAT0510 chip attenuator is designed for surface mount installation on printed circuit boards. These attenuators are designed with wrap-around terminals for solder attachment. Typical applications include mobile electronics where space savings is a critical design factor.

Electrical Data

Attenuation (dB)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10dB
Impedance	50Ω
Attenuation Tolerance	0 to 3dB ±0.3dB 4 to 7dB ±0.5dB 8 to 10dB ±0.7dB
VSWR	1.5 or less
Frequency Range	DC~10GHz
Rated Power @ 70°C	32mW
Operating Temperature Range	-55°C to +125°C
TCR	±50ppm/°C (±0.02dB)
Termination	90/10 SN/Pb or 100%Sn

Environmental Data

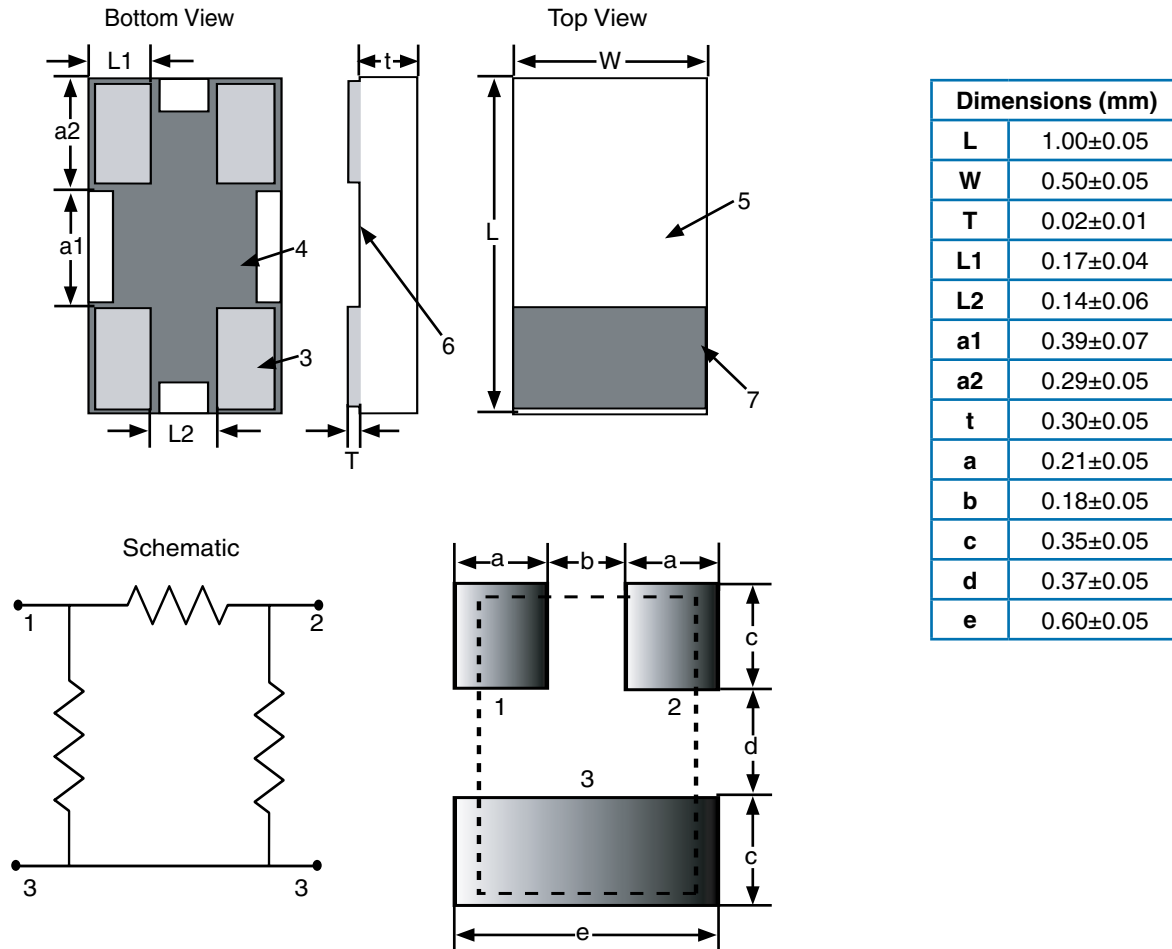
	Test Condition	Tolerance	
		Attenuation	Impedance
Short Time Overload	2.5 x rated voltage, 5 sec	±0.03dB	±0.5%
Load Life	1000 Hours, 70°C	±0.05dB	±1.0%
Moisture Resistance	1000 Hours, 40°C 95% RH	±0.05dB	±1.0%
Temperature Cycle	5 Cycles +125°C high, -55°C Low	±0.03dB	±0.5%
Resistance to Soldering Heat	260°C, 10 sec.	±0.03dB	±0.5%
Terminal Strength	Fulcrum dist: 90mm Bending width: 3mm Substrate: Glass Epoxy t=3mm	±0.03dB	±0.5%
Solderability	235°C, 3 sec.	More than 95%	
Insulation Resistance	500V, 1 minute	1000MΩ or more	

General Note

IRC reserves the right to make changes in product specification without notice or liability. All information is subject to IRC's own data and is considered accurate at time of going to print.

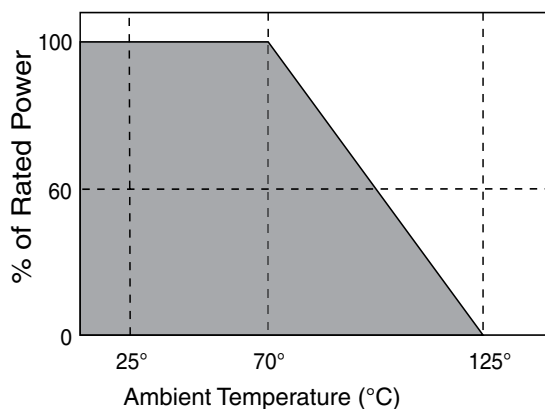
High Frequency Surface Mount Attenuators

Physical Data



1, 2: Input and output terminals 3: Electrode (surface soldering and Pb-free available) 4: Covering resin 5: Alumina substrate 6: Thin film resistor 7: Mark (shows direction)

Power Derating Curve



Ordering Data

Prefix **HFR** - **PAT0510** - **50R0** - **3**

Model
 PAT0510 = Surface Mount Attenuator with 90/10 Sn/Pb terminations
 PAT0510LF = Surface Mount Attenuator with 100% Sn terminations

Impedance
 50R0 = 50Ω

Attenuation
 1, 2, 3, 4, 5, 6, 7, 8, 9, 10dB