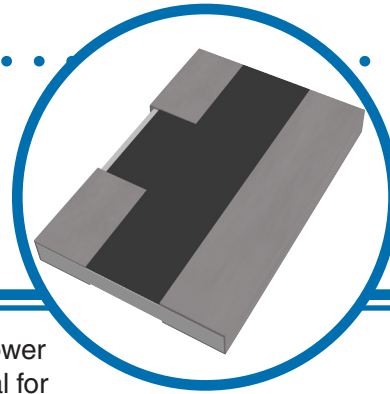


High Frequency Surface Mount Attenuators

PAT-S Series

- RoHS compliant
- Frequency operation up to 10GHz
- Low parasitic capacitance and inductance
- Thin film stability over time and temperature



The PAT chip attenuator series is available in a wide range of power ratings from 32mW to 250mW. The surface mount package is ideal for applications where parasitic capacitance and inductance are concerns. Typical applications include wireless communication receivers and transmitters.

Electrical Data

	PAT0510SLF	PAT0816LF	PAT1220LF	PAT1632LF	PAT3042SCLF	PAT3042SDLF
Impedance	50Ω	50Ω	50Ω	50Ω	50Ω	75Ω
Frequency Range	DC to 10 GHz			DC to 3GHz	DC to 3GHz	DC to 2GHz
Attenuation (dB)	0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10				0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 20	
Attenuation Tolerance	0 to 3dB ±0.3dB 4 to 7dB ±0.5dB 8 to 10dB ±1.0dB		±0.3dB	0 to 10dB: ±0.3dB 16dB: ±0.5dB	0 to 10dB: ±0.3dB 16, 20dB: ±0.5dB	
Power Rating	32mW	64mW	100mW	125mW	250mW	
TCR	±50ppm/°C					
VSWR	1.3					
Operating Temperature Range	-55°C to +125°C					

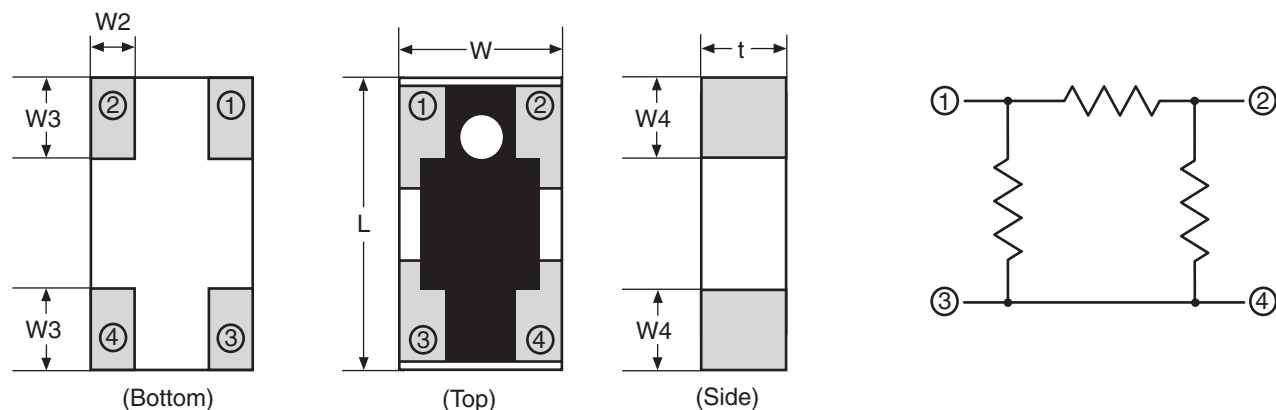
General Note

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.

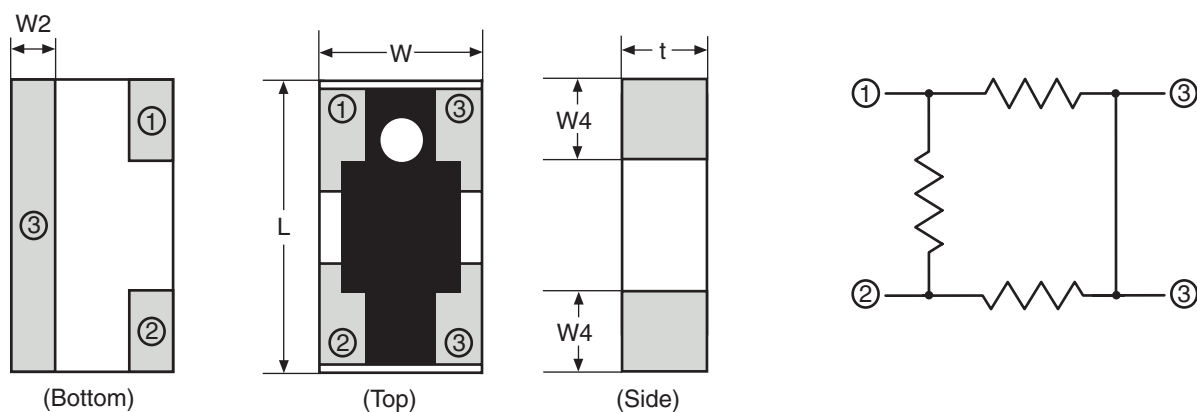
High Frequency Surface Mount Attenuators

Physical Data

PAT0510SLF, PAT0816LF



PAT1220LF, PAT1632LF, PAT3042CLF



Dimensions (mm)

Model	L	W	L2	W3	t
PAT1220LF	2.0 ± 0.2	1.25 ± 0.2	0.6 ± 0.2	0.35 ± 0.2	0.4 ± 0.1
PAT1632LF	3.2 ± 0.2	1.6 ± 0.2	1.0 ± 0.2	0.4 ± 0.2	0.4 ± 0.1
PAT3042SLF	4.2 ± 0.2	3.0 ± 0.2	0.5 ± 0.2	0.95 ± 0.2	0.8 ± 0.15
PAT0510SLF	1.0 ± 0.05	0.5 ± 0.05	0.27 ± 0.05	0.12 ± 0.04	0.3 ± 0.05
PAT0816LF	1.60 ± 0.1	0.8 ± 0.1	0.4 ± 0.15	0.2 ± .015	0.4 ± 0.1

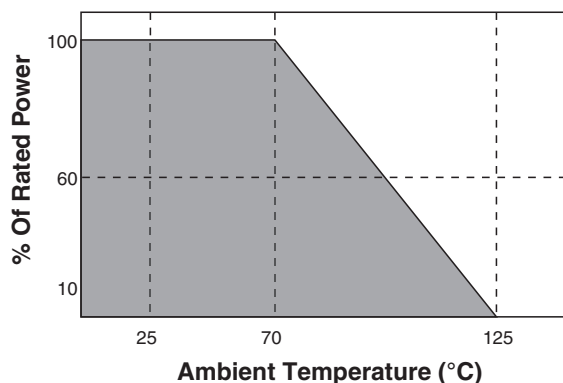
High Frequency Surface Mount Attenuators



Environmental Data

	Test Condition	Tolerance	
		Attenuation	Δ Impedance
Short Time Overload	2.5 x rated voltage, 5 sec	$\pm 0.03\text{dB}$	$\pm 0.5\%$
Load Life	1000 Hours, 70°C	$\pm 0.05\text{dB}$	$\pm 1.0\%$
Moisture Resistance	1000 Hours, 60°C, 95% RH	$\pm 0.05\text{dB}$	$\pm 1.0\%$
Temperature Cycle	5 Cycles, 125°C High, -55°C Low	$\pm 0.03\text{dB}$	$\pm 0.5\%$
Resistance to Solder Heat	260°C, 10 sec.	$\pm 0.03\text{dB}$	$\pm 0.5\%$
Terminal Strength	Fulcrum dist: 90mm, Bending width: 3mm Substrate: Glass epoxy t=1.6mm	$\pm 0.03\text{dB}$	$\pm 0.5\%$
Solderability	235°C, 3 sec.	>95% coverage	
Insulation Resistance	500V, 1 minute	>1000M Ω	

Power Derating Curve



Ordering Data

Prefix HFR - PAT1220LF - C - 3dB - T(5)
Model
 PAT0510SLF; PAT0816LF; PAT1220LF; PAT1632LF
 PAT3042SLF
Impedance
 C = 50 Ω ; D = 75 Ω
Attenuation
 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 16, 20dB
Package
 T = Tape, B = Bulk, Taping Quantity Unit: 5 (5000), 1 (1000)