Mil-Screened High Frequency Chip Resistors

TT electronics

PFC HF MIL Series

- Long life TaNFilm® element
- Military screening per MIL-PRF-55342
- Available in 0603, 0805 and 1206 chip sizes
- Standard 60/40 Sn/Pb solder plated terminations

Wraparound termination with non-leaching Nickel barrier

Ultra stable Tantalum Nitride resistor film system
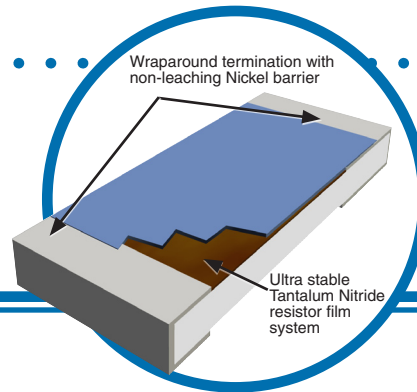
IRC offers MIL-screened high frequency chip terminators are available in standard chip resistor sizes. Available in 0603, 0805 and 1206 chip sizes, the PFC-HF MIL is a drop-in replacement for poorer performing standard size chips. Built on the same production line as our mil-qualified, tantalum nitride PFC chip resistors with Group A screening to MIL-PRF-55342 assures the highest level of performance and reliability.

With operation characterized to 6GHz, the PFC-HF MIL series is suitable for RF and microwave transmission line termination as well as high speed digital line termination. Applications include SCSI bus terminations, DDR memory terminations, RF and microwave transmit and receive line terminations.

Electrical Data

	Maximum Continuous Power Rating	Ohmic Value	Available Tolerances	Temperature Range	Noise	Termination	Substrate
W0603HF	100mW	50.0Ω and 75.0Ω	K J G F	-55°C to 150°C	<-25dB	60/40 Sn/Pb Plate	99.5% Alumina
W0805HF	150mW						
W1206HF	250mW						

Environmental Data

Environmental Test MIL-PRF-55342	Maximum ∆R Per Characteristic E	Performance	
		Typical	Maximum
Thermal Shock	±0.10%	±0.02%	±0.10%
Low Temperature Operation	±0.10%	±0.01%	±0.05%
Short-time Overload	±0.10%	±0.01%	±0.05%
High Temperature Exposure	±0.10%	±0.03%	±0.10%
Effects Of Solder	±0.20%	±0.01%	±0.10%
Moisture Resistance	±0.20%	±0.03%	±0.10%
Life	±0.50%	±0.03%	±0.10%

IRC
A subsidiary of TT electronics plc

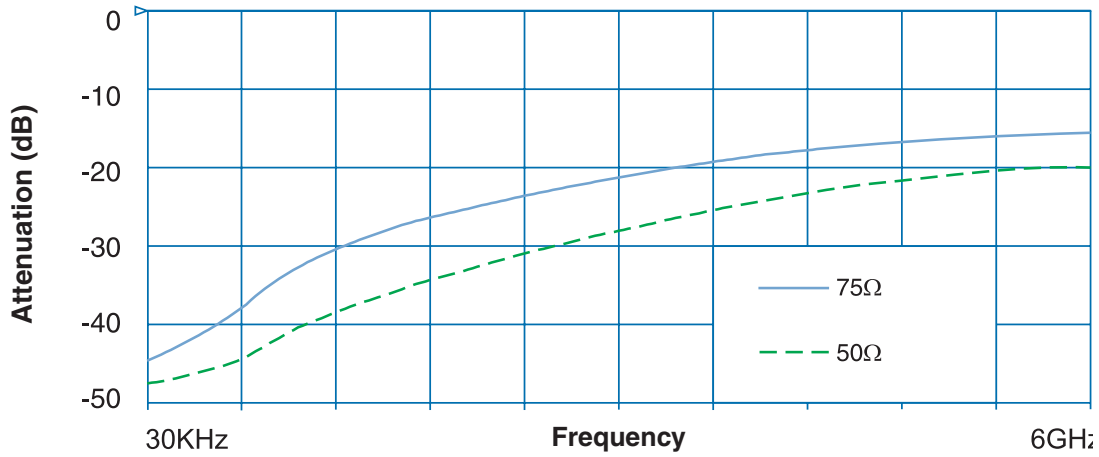# Mil-Screened High Frequency Chip Resistors

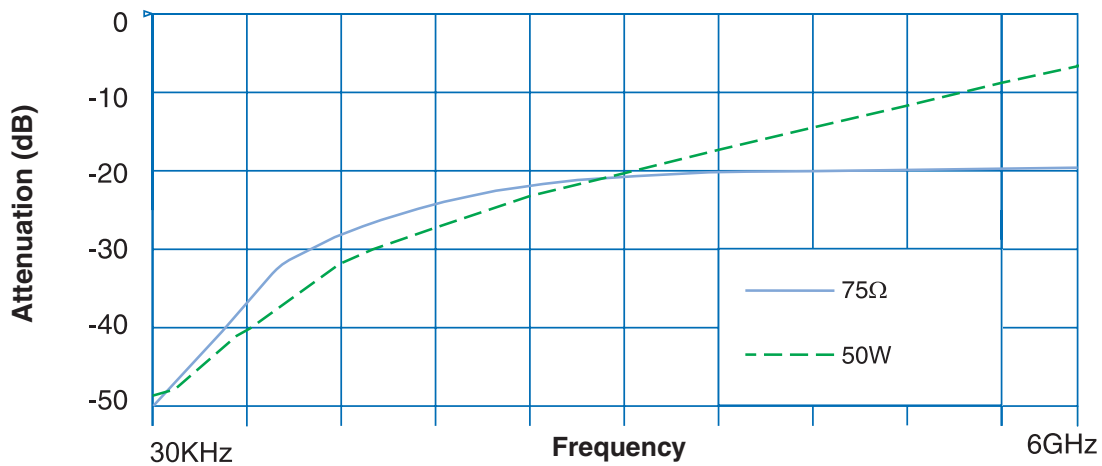## Return Loss Data (S11, S22)

W0603HF Frequency Performance
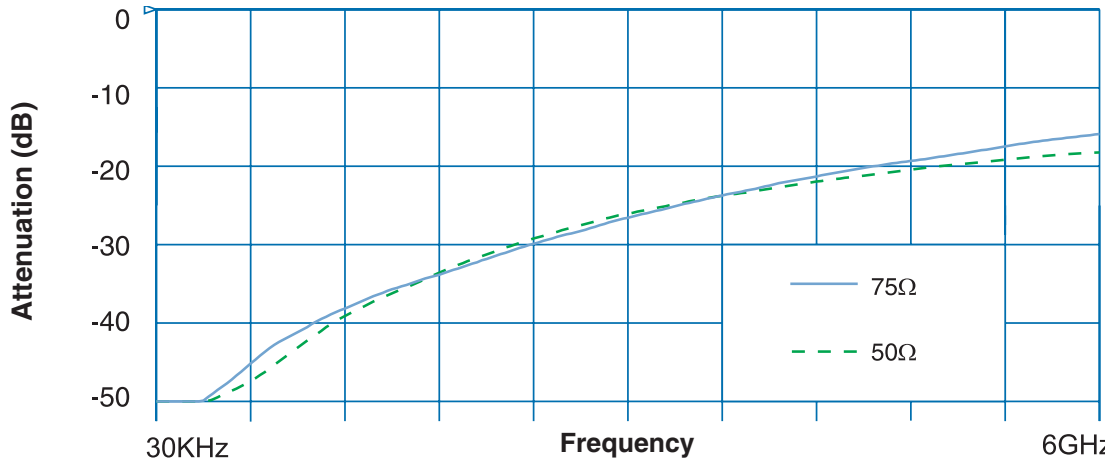
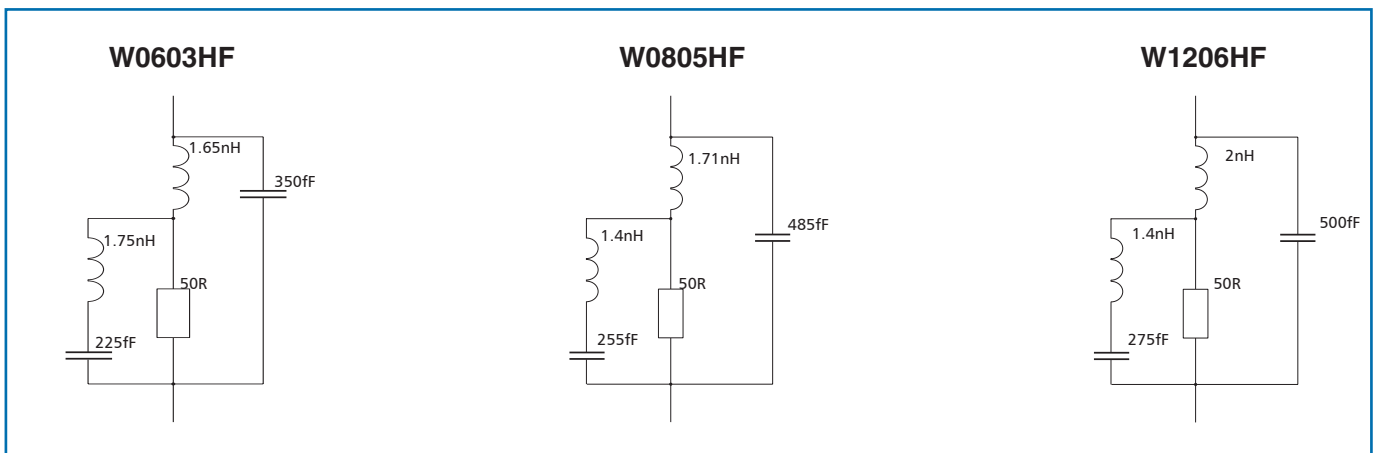### W0805HF Frequency Performance

W1206HF Frequency Performance

Mil-Screened High Frequency Chip Resistors

Physical Data

	Top	Side	Bottom

	L	W	H	a	b
W0603	0.063″±0.004	0.031″±0.004	0.020″±0.004	0.012″±0.005	0.015″±0.005
W0805	0.081″±0.005	0.050″±0.005	0.020″±0.006	0.016″±0.008	0.016″±0.008
W1206	0.126″±0.006	0.063″±0.005	0.024″±0.004	0.025″±0.010	0.025″±0.010

Modeling Data

W0603HF

1.65nH
350fF
1.75nH
50R
225fF

W0805HF

1.71nH
485fF
1.4nH
50R
255fF

W1206HF

2nH
500fF
1.4nH
50R
275fF

Mil-Screened High Frequency Chip Resistors

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Power Derating Curve
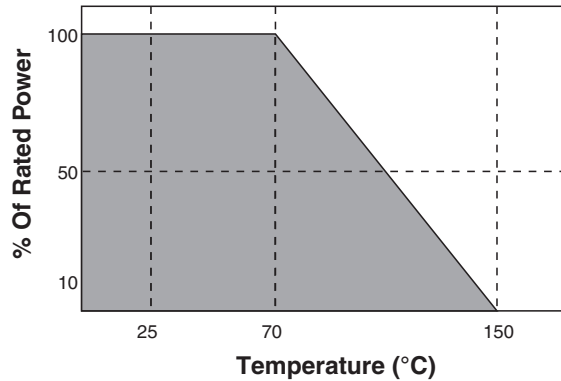
For additional information or to discuss your specific requirements, please contact our Applications Team using the contact details below.

Ordering Data

Prefix · · · · · · · · · · · · PFC - W0603HF - 05 - 50R0 - F

Model ·
W0603HF = High frequency 0603 chip
W0805HF = High frequency 0805 chip
W1206HF = High frequency 1206 chip

Characteristic Code ·
04 = MIL Screening IAW MIL-PRF-55342 Characteristic M
05 = MIL Screening IAW MIL-PRF-55342 Characteristic K
06 = MIL Screening IAW MIL-PRF-55342 Characteristic H
07 = MIL Screening IAW MIL-PRF-55342 Characteristic E

Resistance Code ·
50R0 = 50Ω; 75R0 = 75Ω

Tolerance Code ·
K = ±10%; J = ±5%; G = ±2%; F = ±1%