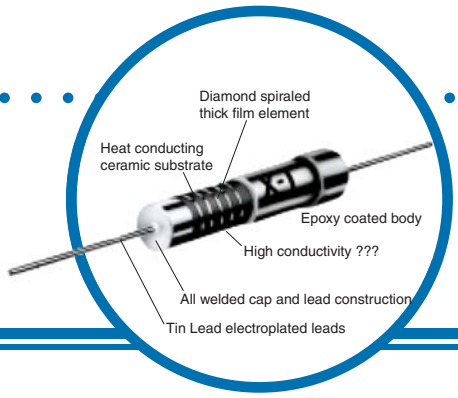
Precision High-Voltage Thick Film Resistors

TT electronics

CGH Series

- 1/4 watt to 5 watt
- TCR of ±50 or ±100 ppm/°C
- 100K ohm to 2000 megohm range
- ±0.5%, ±1%, ±2% or ±5% tolerance

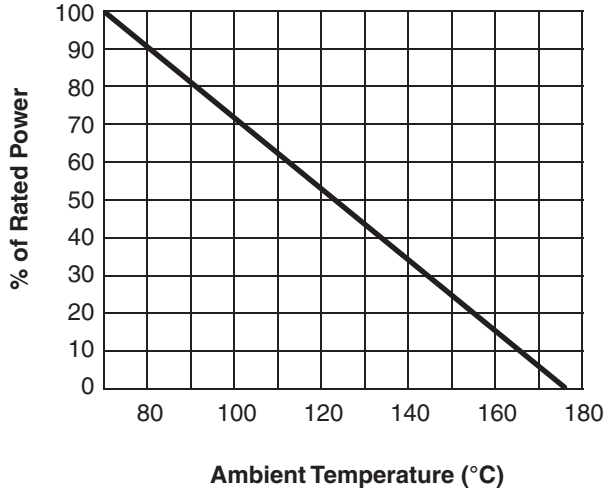


Electrical Data

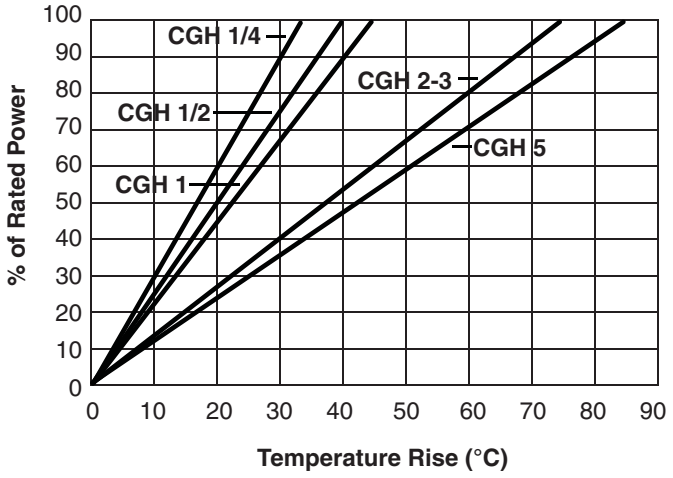
IRC Type	Power Rating at 70°C (watts)[1]	Voltage Rating (volts)[2]	Resistance Range (ohms)[3]	Tolerance (±%)[4]	Maximum TCR (±ppm/°C)[4]	VCR (ppm/V)[5]
CGH - 1/4	1/4	750	100K - 100M	.5, 1, 2, 5	50, 100	0 - -5
CGH - 1/2	1/2	1,500	100K - 500M			
CGH - 1	1	3,000	50K - 750M			
CGH - 2	2	5,000	100K - 1500M			
CGH - 3	3	10,000	200K - 2000M			
CGH - 5	5	20,000	300K - 2000M			

Notes:
1. For power rating above 70°C, see derating curve.
2. Voltage rating shown is the rated DC continuous working voltage or the sine-wave RMS absolute maximum voltage at commercial line frequency. For DC applications the absolute maximum permissible voltage is 1.5 times the value shown for low repetition short-time-overload or pulse conditions of 10 seconds or less duration.
3. Contact factory for higher resistance values.
4. For CGH-1 and 2 above 500 meg and CGH-3 and 5 above 1000M only 2 and 5% tolerance and 100 ppm/°C TCR available.
5. Typical voltage coefficient of resistance is -1 to -2 ppm/V measured at fulll rated voltage and 10% rated voltage.

Power Derating Curve



Temperature Rise Chart



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.

Wire and Film Technologies Division • 4222 South Staples Street • Corpus Christi Texas 78411 USA
Telephone: 361 992 7900 • Facsimile: 361 992 3377 • Website: www.irctt.com

IRC
A subsidiary of
TT electronics plc

Precision High-Voltage Thick Film Resistors

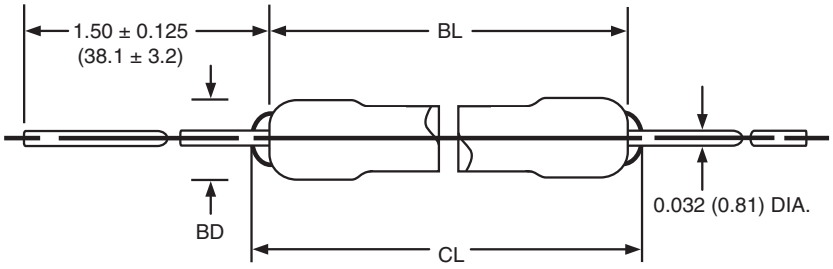
Environmental Data

Test Condition[1]	Maximum ΔR (±3σ)	Typical[2] ΔR
Temperature Shock	±0.25%	±0.10%
Short-Time Overload (1.5 times rated V for 10 sec)	±0.20%	±0.10%
Solder Effect	±0.015%	±0.05%
Terminal Strength	±0.20%	±0.05%
Moisture Resistance (no load or polar)	±0.50%	±0.20%
Load Life (1000 hours at 70°C)	±1.00%	±0.25%
Shelf Life (1 year at 25°C)	±0.10%	±0.03%
High-Temperature Exposure (150°C for 2000 hours)	±0.75%	±0.30%
(175°C for 2000 hours)	±0.01%	±0.40%
Dielectric Breakdown[3] (1/4 and 1/2 watt size)	2000 VDC, 1500 VAC	
(1 watt through 5 watt size)	3500 VDC, 2500 VAC	
Dielectric Strength[4]	±0.15%	±0.05%
Insulation Resistance at 500 VDC	10^9 ohms typ.	10^{11} ohms typ.

Notes:
1. Test method per MIL-STD-202 unless otherwise indicated.
2. Typical defined as that percent change which will include a minimum of 50% of the measured changes in resistance from a variety of lots representing various unit sizes and ranges.
3. Values shown are the maximum safe dielectric voltage applied from a V block or foil wrapping which extends the complete body length of the resistor under test.
4. Percent change after the maximum safe dielectric voltage is applied for 1 minute.

Precision High-Voltage Thick Film Resistors

Physical Data



Dimensions (Inches and (mm))			
IRC Type	**Body Length - BL**	**Body Diameter - BD**	**Clean Lead to Clean Lead - CL**
CGH - 1/4	0.275 ± 0.031 (6.98 ± 0.79)	0.088 ± 0.010 (2.22 ± 0.25)	0.400 (10.16)
CGH - 1/2	0.400 ± 0.031 (10.16 ± 0.79)	0.138 ± 0.016 (3.51 ± 0.41)	0.525 (13.34)
CGH - 1	0.690 ± 0.062 (17.53 ± 1.57)	0.297 ± 0.031 (7.54 ± 0.79)	0.900 (22.86)
CGH - 2	1.062 ± 0.062 (26.97 ± 1.57)	0.297 ± 0.031 (7.54 ± 0.79)	1.250 (31.75)
CGH - 3	2.062 ± 0.062 (52.37 ± 1.57)	0.297 ± 0.031 (7.54 ± 0.79)	2.250 (57.15)
CGH - 5	3.062 ± 0.062 (77.77 ± 1.57)	0.297 ± 0.031 (7.54 ± 0.79)	3.250 (82.55)

Ordering Data

Sample Part No. CGH 3 - 100 - 2205 - F - LF

IRC Type
CGH 1/4, CGH 1/2, CGH 1, CGH 2, CGH 3, CGH 5

Temperature Coefficient
(±100 ppm/°C, ±50 ppm/°C)

Resistance

Tolerance
D = ±0.5%
F = ±1%
G = ±2%
J = ±5%

RoHS Indicator
LF indicates RoHS compliance

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for international resistive ***manufacturer:***

Other Similar products are found below :

CVW106R80JLF LRC-LR2010LF-01-R250-F CAW1047R0JLF OAR3R100JLF LOB-3-R04-FLF-TR CVF101002JLF PLO10-R050F CVW5R330JLF CVW101000JLF W21-12R0J OAR5R020JLF OARS1R002FLF W22-1K2JI W21-5R60J CVW104700JLF CAF104701JLF CVW51R00JLF PFC-W1206LF-03-1001-B CVF51000JLF CVW1022R0JLF CAW515R0JLF CAW106R80JLF PFC-W1206LF-03-4990BTR W22-1001JLF CAW5R150JLF CAF51000JLF CMO22702JLFTR PFC-W0402LF-03-2942-B CVW101R00JLF PFC-W1206LF-03-6730-B-TR CAF52201JLF LRC-LR2010LF-01-1R0-F LRC-LR2512LF-01-1R00-F W21-R220J PFC-W0805LF-03-1052-B PFC-W1206LF-03-3240-B W21-51R0JLF CVW1010R0JLF CAW10R220JLF CAW51R50JLF CAW103300JLF LRC-LRF3WLF-01-R011-F CAF51001JLF CCW122R0JLFTR CVW54R70JLF CMF1/42941FLFTR CAW52R20JLF CVW5R220JLF CVW522R0JLF CMO14701JLFTR