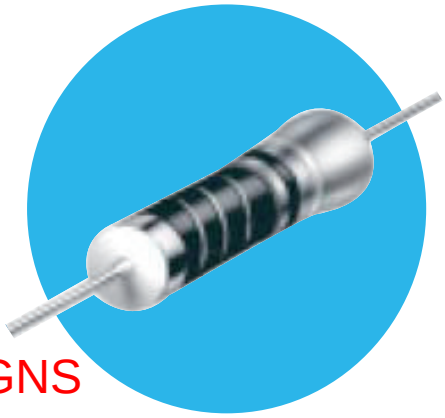
Resistors

TT Electronics

General Purpose Carbon Film Resistors

CF Series

- High stability performance
- Only available as Lead Free
- Auto sequencing/insertion compatible
- Ideal for commercial/industrial applications



NOT RECOMMENDED FOR NEW DESIGNS

All parts are Pb-free and comply with EU Directive 2011/65/EU amended by (EU) 2015/863 (RoHS3)

Electrical Data

		Tested per MIL-STD-202		
		CF 1/8	**CF 1/4**	**CF 1/2**
Power Rating (watts) at 70°C		1/8	1/4	1/2
Derated to 0 Load at		155°C		
Maximum Working Voltage		200V	250V	350V
Operating Temperature Range		-55°C to +155°C		
Resistance Range	**(±5%)**	1.0 Ω - 22 MΩ		
	(±2%)	10 Ω - 1 MΩ	10 Ω - 4.7 MΩ	10 Ω - 4.7 MΩ

Environmental Data

	CF 1/8	**CF 1/4**	**CF 1/2**
Moisture Resistance	<100 K ± (3% + 0.05 Ω)		
	>100 K ± (5% + 0.05 Ω)		
Thermal Shock	±0.5%		
Load life at 70°C - 1000 hours	<100 K ± (2% + 0.05 Ω)		
	<100 K ± (3% + 0.05 Ω)		
Shock and Vibration	±0.2%		
Resistance to Soldering Heat	±0.5%		
Terminal Strength	±0.5%		
Dielectric Withstand Voltage	300 volts RMS min.	500 volts RMS min.	700 volts RMS min.
Maximum Pulse Voltage	400V	600V	700V
Insulation Resistance	10,000 meg min.		
Voltage Coefficient	-10 ppm/Vmax.		
Short Time Overload	±0.75%		

General Note

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

BI Technologies IRC Welwyn

www.ttelectronics.com/resistors

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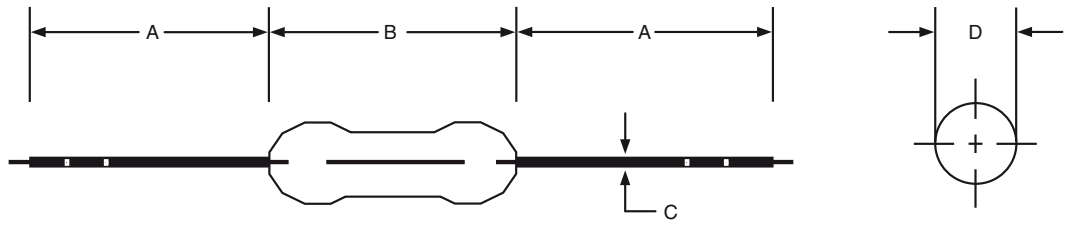
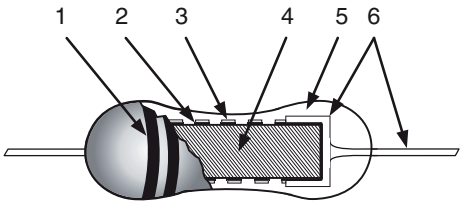
Physical Data



Dimensions (inches and (mm))			
Dimension	**CF 1/8**	**CF 1/4**	**CF 1/2**
A	1.10 ± .08 (28.0 ± 2.0)		
B	0.13 + .01/-.00 (3.2 + 0.2/-0.0)	0.24 ± .01 (6.0 ± 0.3)	0.33 ± .02 (8.5 ± 0.5)
C	0.018 ± .001 (0.45 ± 0.02)	0.022 ± .001 (0.55 ± 0.03)	0.026 ± .002 (0.65 ± 0.05)
D	0.07 ± .01 (1.8 ± 0.15)	0.09 ± .01 (2.3 ± 0.2)	0.11 ± .01 (2.8 ± 0.3)

Construction



1. COLOR BANDS.
The resistors are permanently color banded for resistance value and tolerance in accordance with EIA specifications.

2. HELIXING.
The units are helixed to a predetermined base to final value ratio to obtain the best TCR, noise and stability characteristics.

3. FILM.
Carbon-film resistors have a homogeneous film of pure carbon deposited by a pyrolitic process at carefully controlled temperatures.

4. SUBSTRATES.
The substrates are of a proprietary non alkaline ceramic, prepared and processed under exacting conditions to guarantee the utmost in uniformity and surface characteristics.

5. INSULATION.
The resistors are coated with multiple layers of a baked-on fire-retardant synthetic resin which provides the units with a high degree of mechanical and electrical protection in the most adverse operating conditions.

6. TERMINATIONS.
Positive contact is provided to the resistance element by precision-made end caps. The lead wires are attached by using proprietary welding techniques.

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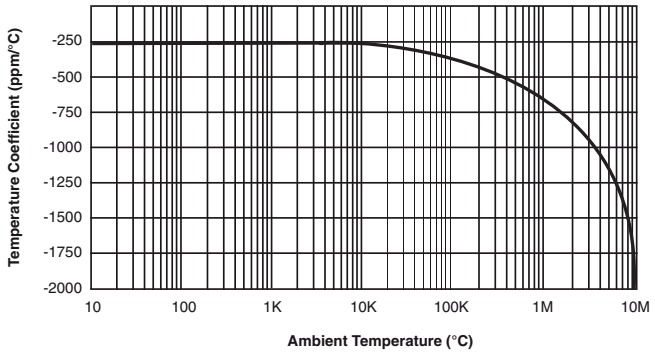
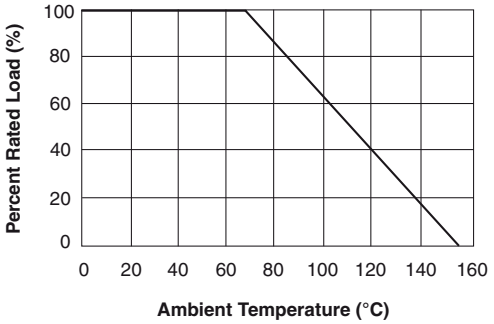
Performance Curves

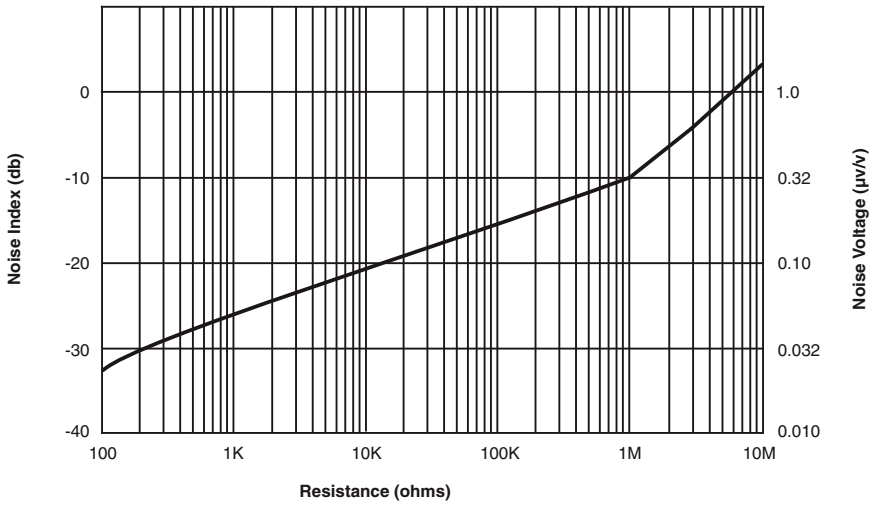
Temperature Coefficient (Typical)



Derating Curve (Typical)



Current Noise (Typical)



Ordering Data

Sample Part No. CF - 1/4 102 J BLK

IRC Type
CF

Size

Resistance Value
2 digit range and 1 digit multiplier

Tolerance
G = 2%
J = 5%
K = 10%

Packaging
BLK = Bulk

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Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.

Как с нами связаться

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