

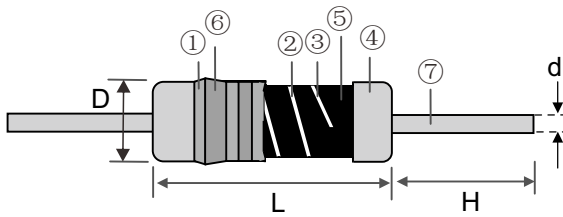
Features

- I High stability.
- II Low noise coefficient.
- III Excellent high frequency characteristic.
- IV High thermal conductivity.

Applications

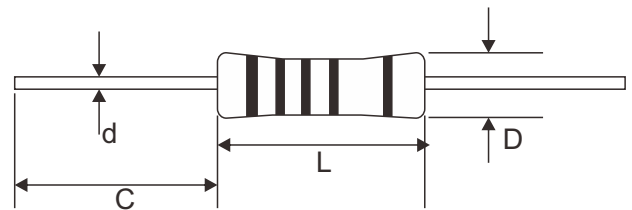
- I Telecom.
- II Medical and calibration equipment.
- III Industrial process control systems.
- IV Audio and video.
- V Precision equipment, military and avionics

Constructions



a	Insulation Coating (Expose resin)
b	Trimming Line
c	Ceramic Rod (Alumina ceramic)
d	Electrode Cap (Tinned iron cap)
e	Resistor Layer
f	Marking (Expose)
g	Lead Wire (Tinned annealed copper wire)

Dimensions



Type	Dimensions(mm)			
	L	D	C	d
FCR0204	3.4±0.3	1.9±0.2	28±2.0	0.45±0.05
FCR0207	6.3±0.5	2.4±0.3	28±2.0	0.55±0.05

Ordering Information

Example:

FCR	04	B	C	T	100R0
(1)	(2)	(3)	(4)	(5)	(6)
Series Name	Power Rating	Resistance Tolerance	TCR	Packaging	Resistance

(1)Type: FCR SERIES

(2)Power Rating: 04=0.4W,06=0.6W

(3)Tolerance: B=±0.1%、J=±5%

(4)TCR:≤±300PPM/°C;

(5)Packaging: B=bulk, T=Tape&Reel

(6)Resistance Value:0R100=0.1Ω,100R0=100Ω,10K00=10KΩ,1M000=1MΩ

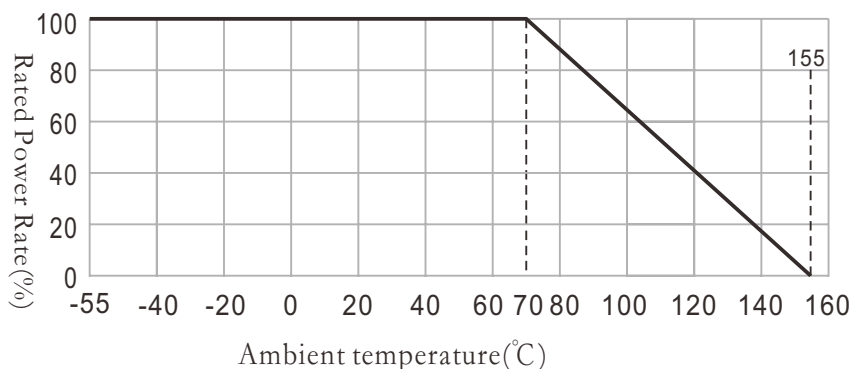
Reference Standards

JIS C 5202

Applications And Ratings

Type	Rated Power at 40°C (W)	Rated Power at 70°C (W)	Max.Working Voltage(V)	Insulate Voltage(V)	Max. Overload Voltage(V)	Resistance Range(Ω)	TCR (PPM/ $^{\circ}$ C)	Tolerance Range	Operating Temperature
FCR0204	0.4W	1/4W	250	300	500	1 Ω ~10M Ω	$\leq \pm 300$ PPM/ $^{\circ}$ C	$\pm 1.0\%$ $\pm 5.0\%$	-55~125 $^{\circ}$ C
FCR0207	0.6W	1/3W	350	500	700	1 Ω ~10M Ω			

Derating Curve



Performance Characteristics

Test Item	Performance	Test Condition (JIS-C-5202)
Short Time Overload	$\pm 0.25\%+0.05\Omega$	2.5 times RCWV for 5 Sec
Voltage Proof on Insulation	By type	in V-block for 60 Sec., test voltage by type
Temperature Coefficient	By type	-55 $^{\circ}$ C to +155 $^{\circ}$ C
Insulation Resistance	>1,000M Ω	in V-block for 60 Sec.
Solderability	95% Min. coverage	235 \pm 5 $^{\circ}$ C for 3 \pm 0.5 Sec.
Solvent Resistance of Marking	No deterioration of coatings and markings	IPA for 5 \pm 0.5 Min. with ultrasonic
Robustness of Terminations	≥ 2.5 kg (24.5N)	Direct load for 10 Sec. in the direction of the terminal leads
Periodic-pulse Overload	$\pm 1.0\%+0.05\Omega$	4 times RCWV 10,000 cycles (1 Sec. on, 25 Sec. off)
Damp Heat Steady State	$\pm 1.5\%+0.05\Omega$	40 \pm 2 $^{\circ}$ C, 90-95% RH for 56 days, loaded with 0.1 times RCWV
Endurance at 70 $^{\circ}$ C	$\pm 1.5\%+0.05\Omega$	70 \pm 2 $^{\circ}$ C at RCWV for 1,000 Hr. (1.5 Hr. on, 0.5 Hr. off)
Temperature Cycling	$\pm 0.75\%+0.05\Omega$	-55 $^{\circ}$ C \rightarrow Room Temp. \rightarrow +155 $^{\circ}$ C \rightarrow Room Temp. (5 cycles)
Resistance to Soldering Heat	$\pm 0.25\%+0.05\Omega$	260 \pm 3 $^{\circ}$ C for 10 \pm 1 Sec., immersed to a point 3 \pm 0.5mm from the body
Accidental Overload Test	No evidence of flaming or arcing	4 times RCWV for 1 Min.