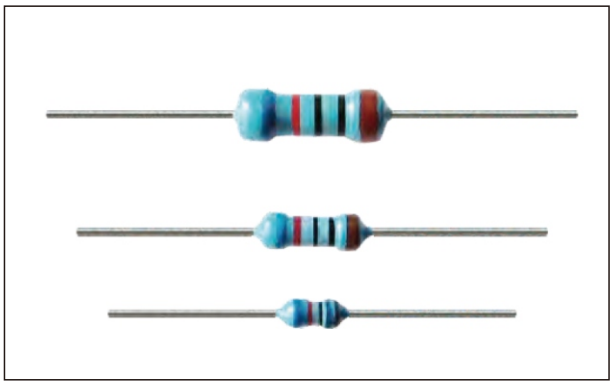


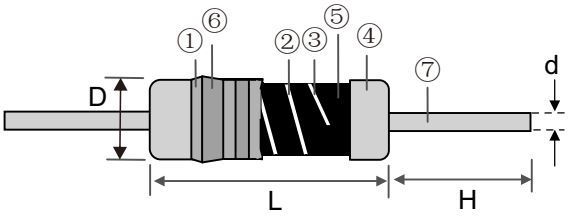
Features

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

Applications

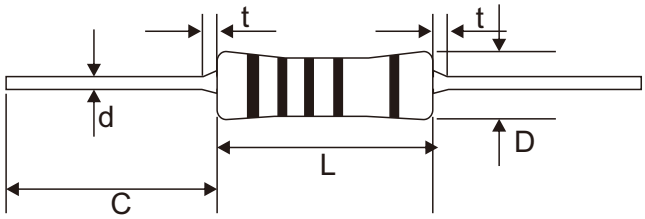
Ⅰ Telecom.
Ⅱ Medical and calibration equipment.
Ⅲ Industrial process control systems.
Ⅳ Audio and video.
Ⅴ Precision equipment, military and avionics

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	t Max
FCR0204	3.4±0.3	1.9±0.2	28±2.0	0.45±0.05	1.5
FCR0207	6.3±0.5	2.4±0.3	28±2.0	0.55±0.05	1.5

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/℃;

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

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

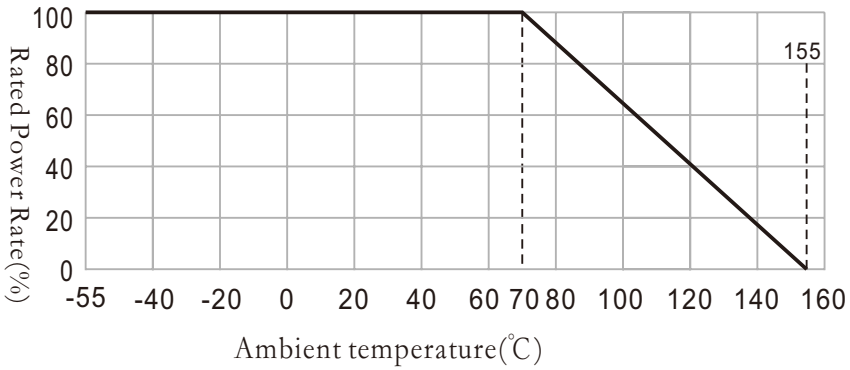
Reference Standards

JIS C 5202

Applications And Ratings

Type	Rated Power at 40℃ (W)	Rated Power at 70℃ (W)	Max.Working Voltage(V)	Insulate Voltage(V)	Max. Overload Voltage(V)	Resistance Range(Ω)	TCR (PPM/℃)	Tolerance Range	Operating Temperature
FCR0204	0.4W	1/4W	250	300	500	1Ω~10MΩ	⩽±300PPM/℃	±1.0% ±5.0%	-55~125℃
FCR0207	0.6W	1/3W	350	500	700	1Ω~10MΩ			

Derating Curve



Performance Characteristics

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