

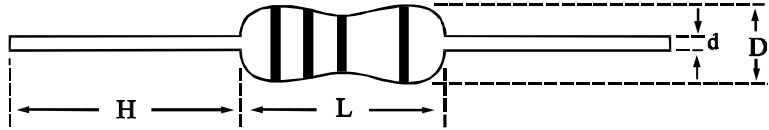
Carbon Film Flame Proof Resistors

I PRODUCT FEATURES :

1. Lowest cost , prompt delivery
2. Excellent long term stability
3. Wide resistance range $0\omega 22\sim 100m\omega$
4. Complete flameproof construction ul-1412

I POWER RATINGS DIMENSIONS

- Standard Type: 1/4W ~2W
- Miniature Type: 1/4Ws~3Ws



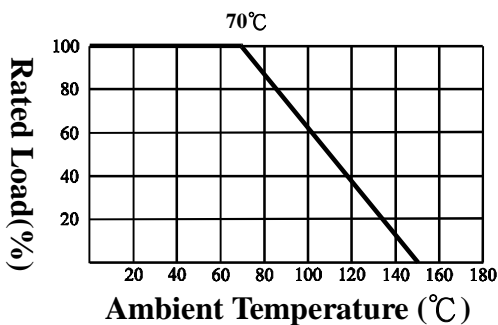
STYLE		DIMENSIONS(mm)				Comment
Normal	Miniature	L	D	H	d	
FCR1/4W	FCR1/4Ws	6.3±0.5	2.3±0.3	28±2.0	0.55±0.03	
FCR-1/3W	FCR1/2Wss	8.5±0.5	2.7±0.5	27±2.0	0.60±0.03	
FCR-1/2W	FCR1Ws	9.0±0.5	3.2±0.5	26±2.0	0.65±0.03	
FCR-1W	FCR2Ws	11.5±1.0	4.5±0.5	35±2.0	0.78±0.03	
FCR-2W	FCR3Ws	15.5±1.0	5.0±0.5	32±2.0	0.78±0.03	

I ELECTRICAL CHARACTERISTICS

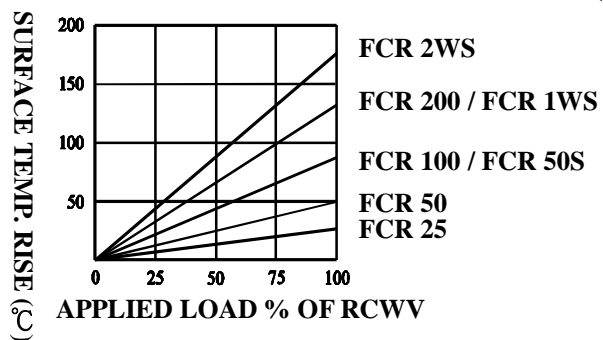
Power rating at 70°C	1/4W	1/2Ws	1/2W	1Ws	1W	2Ws	2W	3Ws
STYLE	FCR-25	FCR-50S	FCR-50	FCR1WS	FCR-100	FCR2WS	FCR-200	FCR3WS
Operating Temp. Range	-55°C to +155°C							
Max. Working Voltage	250V	300V	350V	400V	450V	500V	500V	500V
Max. Overload Voltage	500V	500V	700V	800V	1000V	1000V	1000V	1000V
Dielectric Withstanding volt.	500V	500V	700V	800V	1000V	1000V	1000V	1000V
Value Range · ±5%	1Ω~10MΩ , E24 series							

Value Range for standard resistance , below or over this resistance on request.

I POWER GRAPH



I HOT-SPOT TEMPERATURE (%)



I TEMPERATURE COEFFICIENT (T.C.R.)

STYLE		Max. Value of Temp. Coefficient ppm/°C		
		under 100KΩ	100KΩ to 1MΩ	1MΩ to 4M7Ω
FCR	1W.2W.2WS. 3WS	±350 ppm	-0ppm -500ppm	-0ppm -1000ppm
	1/6W.1/4W.1/4WS 1/2W.1/2WS.1WS	+350ppm-500ppm	-0ppm-700ppm	-0ppm-1500ppm

I ENVIRONMENTAL CHARACTERISTICS

PERFORMANCE TEST	TEST METHOD	APPRAISE
SHORT TIME OVERLOAD	JIS-C-5202 5.5 2.5 times RCWV for 5 seconds	±(0.75%+0.05Ω)
TEMPERATURE COEFFICIENT [T.C.R.]	Resistance value at room Temperature and room Temperature+100°C	page
DIELECTRIC WITHSTANDING VOLTAGE	JIS-C5202 5.7 In V-Block for 60 seconds.	By Type
PULSE OVERLOAD	JIS-C5202 5.8 4 times RCWV for 10000cycles(1sec.on , 25secs.off)	±(1%+0.05Ω)
INSULATION RESISTANCE	JIS-C5202 5.6 In V-Block	> 10000MΩ
LOAD LIFE	JIS-C5202 7.10 70°C at RCWV for 1000hrs.(1.5hrs. on , 0.5hrs.off)	±(3%+0.05Ω)
LOAD LIFE IN HUMIDITY	JIS-C5202 7.9 40±2°C 90~95%RH at RCWV for 1000hrs. (1.5hrs. on , 0.5hrs.off)	Less than 100KΩ±3% 100KΩ or more±5%
SOLDER ABILITY	JIS-C5202 6.5 260±5°C for 2±0.5 seconds	95% min. coverage
RESISTANCE TO SOLVENT	JIS-C5202 6.9 Trichroethane for 1 min. with ultrasonic	No deterioration of coatings and markings
TERMINAL STRENGTH	Direct load for 10 sec. In the direction off the terminal leads.	Tensile: ≥ 2.5kg

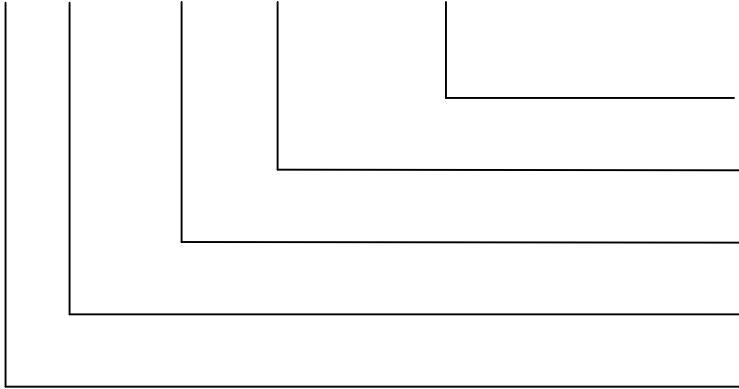
Rated continuous Working Voltage (RCWV) = $\sqrt{\text{POWER.RATING.} * \text{RESISTANCE.VALUE}}$

I Resistor body color

- 1. Normal size----- Grey
- 2. Small size-----Pink

I PART NUMBER:

FCR -1/4W - VALUE - J - FORMING TYPE



TB = BU / T/B / T/R / F / FC / FKK / M / MK / PANA-T or R

RES. TOLERANCE 5% / 2% = J / G

RESISTANCE 0R1 1R 10R 100R 1K 10K 100K 1M 10M

DIN SIZE , BODY SIZE

CARBON FILM FLAME PROOF RESISTOR