

不燃性碳膜電阻器

FCR Series

Resistance Range : 1R ~ 1MΩ

Flame-Proof Type Carbon Film Resistors - FCR Series

◆ ORDERING PROCEDURE:

Example: FCR25E101JTB

Power:	Type:	T.C.R/°C	Resistance	Tol.	Package
1/4W	FCR25	E=±100ppm	010=1Ω	M = ±20%	TB = T/Box.
1/2W	FCR50	F=±200ppm	100=10Ω	5 = ±10%	B = Bulk
1W	FCR100	G=±300ppm	101=100Ω	J = ±5%	
2W	FCR200	H=±400ppm	102=1KΩ	F = ±1%	
3W	FCR50	I=±500ppm	103=10KΩ	D = ±0.5%	
		J=±600ppm	104=100KΩ	C = ±0.25%	
			105=1MΩ	B = ±0.1%	

Figure



◆ FEATURES

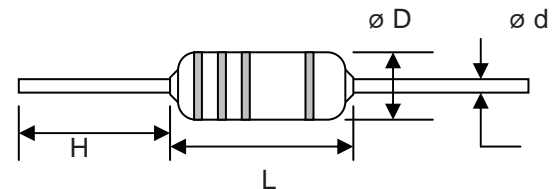
- Lower cost and prompt deliver.
- High power-to size ratio for significant space savings.
- Complete flameproof construction-UL
- Excellent long-term stability.
- Wide resistance range : 1Ω ~ 10MΩ
- Standard tolerance : ±5%

◆ INTRODUCTION

The FCR series flame-proof Carbon Film Resistors are manufactured by Coating a homogeneous film of pure carbon on high grade ceramic rods, resistance less than 10 have an electro less deposited nickel film, and are coated with layers of gray color flame-proof lacquer. These resistors meet overload tests in accordance with UL specification without producing a fire hazard.

◆ DIMENSIONS:

STYLE	DIMENSION (mm)			
	L	ΦD	H	Φd
FCR-25	6.3±0.5	2.3±0.3	28±2	0.6±0.05
FCR-50	9.0±0.5	3.2±0.3	26±2	0.6±0.05
FCR-100	11.5±1.0	3.2±0.5	35±2	0.8±0.05
FCR-200	15.5±1.0	4.5±0.5	32±2	0.8±0.05
FCR-300	17.5±1.0	6.5±0.5	35±2	0.8±0.05



◆ ELECTRICAL CHARACTERISTICS:

Style	FCR-25	FCR-50	FCR-100	FCR-200	FCR-300	
Power Rating 70°C	1/4W	1/2W	1W	2W	3W	
Operating Temp. Range	-55°C ~ +155°C					
Max. Working Voltage	250V	350V	500V	500V	600V	
Max. Overload Voltage	500V	700V	1000V	1000V	1000V	
Dielectric Withstanding Voltage	500V	700V	1500V	1500V	1500V	
Max. Intermittence Overload	750V	1000V	1500V	2000V	2000V	
T.C.R.(ppm/°C)	FCR-25 /FCR-50			FCR-100 /FCR-200 /FCR-300		
	100KΩ down	100K~1MΩ	1MΩ up	100KΩ down	100K~1MΩ	1MΩ up
	-0.7	-0.5	-0.35	+350PPM	-0.7	-0.35

\* The listed resistance range for standard resistance, below or over this resistance is on request.



品質承諾標誌  
Quality Commitment

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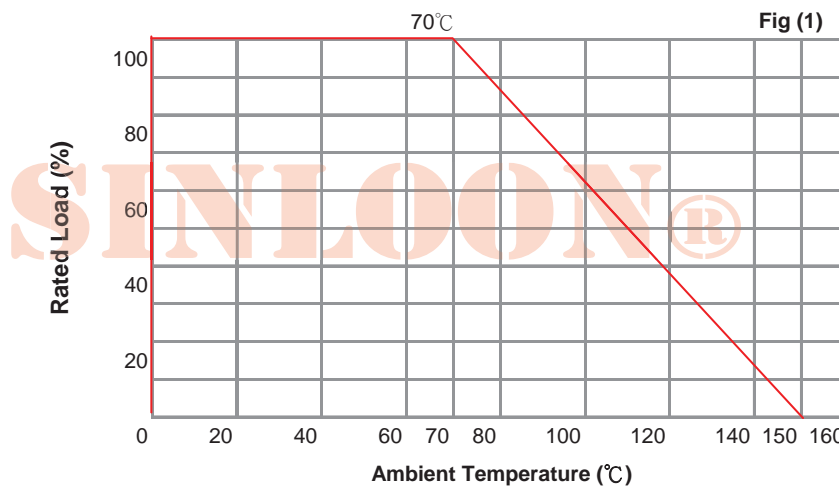
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◆ENVIRONMENTAL CHARACTERISTICS :

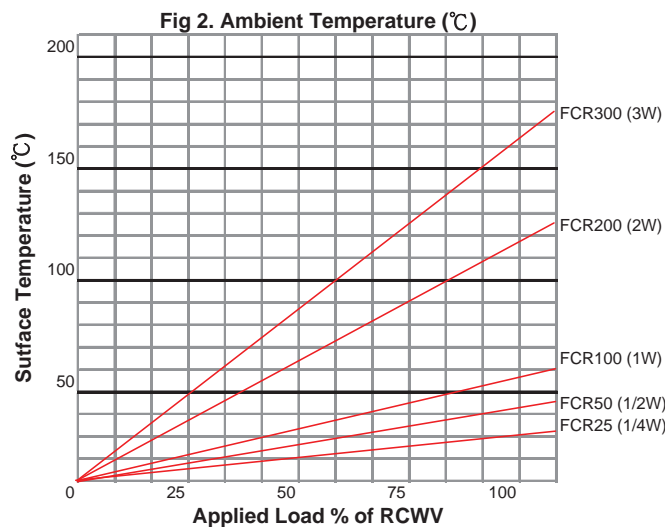
PERFORMANCE TEST	TEST METHOD	APPRAISE
Short Time Overload	JIS-C-5202 5.5 : 2.5 times RCWV for 5 seconds	±(0.75%+0.05)Ω
Dielectric Withstanding V.	JIS-C-5202 5.7 : in V-Block for 60 seconds	By Type
Temperature Coefficient	JIS-C-5202 5.2 : -55°C ~+155°C	By Type
Insulation Resistance	JIS-C-5202 5.6 : in V-Block	≥ 1000 MΩ
Solderability	JIS-C-5202 6.5 : 230°C for 5±0.5 seconds	95% min. coverage
Resistance to Solvent	JIS-C-5202 6.9 : Trichroethance for 1 min. with ultrasonic	no deterioration
Terminal Strength	Direct load for 10 sec. In the direction of the terminal leads	≥ 2.5KG/24.5N
Pulse Overload	JIS-C-5202 5.8 : 4 time RCWV 10000 cycles(1 sec.on, 25 sec.off)	±(2%+0.05)Ω
Load Life in Humidity	JIS-C-5202 7.9 : 40±2°C, 90~95% RH at RCWV for 1000 hrs (1.5hrs. on, 0.5 hrs. off)	±(3%+0.05)Ω
Load Life	JIS-C-5202 7.10 : 70°C at RCWV for 1000hrs (1.5hrs.on, 0.5hrs.off)	±(3%+0.05)Ω
Temperature Cycling		±(1%+0.05)Ω
Soldering Heat		±(1%+0.05)Ω

\* Rated continuous Working Valtege (RCWV) =  $\sqrt{\text{Power rating} \times \text{Resistor value}}$

◆ POWER DERATING CURVE



◆ HOT-SPOT TEMPERATURE

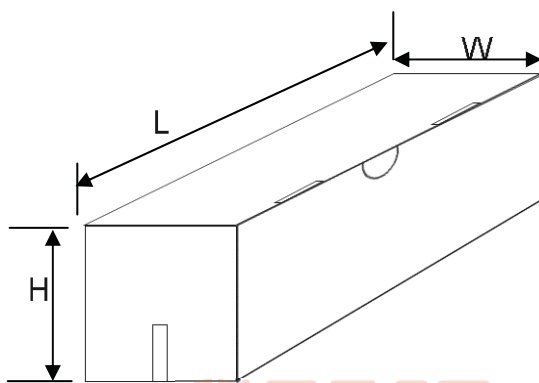


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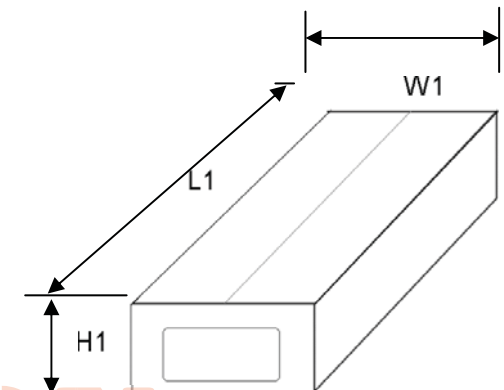
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◆ **PACKING**

AXIAL LEAD RESISTOR PACKING SPECIFICATION									
POWER	STYLE		QUANTITY		BOX		CARTON DIMENSION		
	Normal		Type Box	Bulk Bag	InBox	Bulk Box	L	W	H
1/4W	FCR25		5000	1000	5000	10000			
1/2W	FCR50		2500	500	2500	5000			
1W	FCR100		2000	250	2000	2500			
2W	FCR200		1000	200	1000	2000			
3W	FCR300		500	100	500	1000			



Type Box



Bulk Box



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