

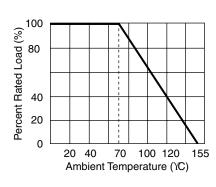
Carbon Film Fixed Resistors (RoHS Compliant) CF-RC Series

■ FEATURES

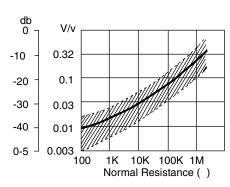
- Temperature Range -55°C ~ +155°C
- ±5% tolerance
- · High quality performance at economical prices
- · Compatible with automatic insertion equipment
- · Flame retardant type available
- · Tin coated annealed copper wire
- Value Range below 1Ω or above $10M\Omega$ are available by special request, please ask for details



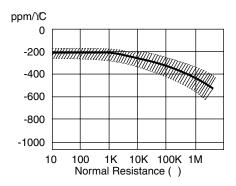
■ DERATING CURVE



■ CURRENT NOISE



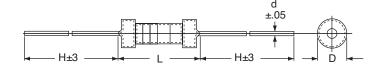
■ TEMPERATURE COEFFICIENT



■ PART NUMBERING SYSTEM



■ SERIES, SIZE, WATTAGE, VOLTAGE, DIMENSIONS, AND AVAILABLE PACKAGING



Code:	Package:
	Bulk
/REEL	Tape and Reel
/AP	Ammo Pack

Series	Size	Watts	Voltage (V) (max.)			Dimension	ons (mm)	Standard Quantities Available			
Series	S Size Walls		W.V.	O.V.	L max.	D max.	Н	d	Bulk	Tape and Reel	Ammo Pack
291	Standard	1/4	250	500	6.8	2.5	28	0.54	1,000	5,000	1,000
293	Standard	1/2	350	700	10	3.5	28	0.54	1,000	3,000	1,000
294	Small	1	500	1,000	12	5.0	28	0.7	1,000	3,000	1,000
299	Standard	1/8	200	400	3.5	1.85	28	0.45	1,000	5,000	2,000

\blacksquare STANDARD VALUES (Ω)

XC-600035

0.5	2.0	4.3	9.1	20	43	91	200	430	910	2K	3.9K	8.2K	18K	39K	82K	180K	390K	820K	1.8M	3.9M	8.2M
1.0	2.2	4.7	10	22	47	100	220	470	1K	2.2K	4.3K	9.1K	20K	43K	91K	200K	430K	910K	2M	4.3M	9.1M
1.1	2.4	5.1	11	24	51	110	240	510	1.1K	2.4K	4.7K	10K	22K	47K	100K	220K	470K	1M	2.2M	4.7M	10M
1.2	2.7	5.6	12	27	56	120	270	560	1.2K	2.7K	5.1K	11K	24 K	51K	110K	240K	510K	1.1M	2.4M	5.1M	
1.3	3.0	6.2	13	30	62	130	300	620	1.3K	3K	5.6K	12K	27K	56K	120K	270K	560K	1.2M	2.7M	5.6M	
1.5	3.3	6.8	15	33	68	150	330	680	1.5K	3.2K	6.2K	13K	30K	62K	130K	300K	620K	1.3M	ЗМ	6.2M	
1.6	3.6	7.5	16	36	75	160	360	750	1.6K	3.3K	6.8K	15K	33K	68K	150K	330K	680K	1.5M	3.3M	6.8M	
1.8	3.9	8.2	18	39	82	180	390	820	1.8K	3.6K	7.5K	16K	36K	75K	160K	360K	750K	1.6M	3.6M	7.5M	

XICON PASSIVE COMPONENTS · (800) 628-0544

Date Revised: 9/1/20



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CHARACTERISTICS

Characteristics	L	imits		Test Methods (JIS C 5201-1)					
DC. Resistance	Must be within the tolerance.	specified		5.1 The limit of error of measuring apparatus shall not exceed allowable range or 5% of resistance tolerance					
Temperature coefficient	Resist. Range < 10 Ω 11Ω ~ 99K 100K ~ 1M 1.1M ~ 10M	T.C.R 0 ~ ±3 0 ~ -4 0 ~ -7 0 ~ -1	50 00	5.2 Natural resistance change per temp. degree centigrade. R2-R1 x106 (PPM/°C) R1(t2-t1) R1: Resistance value at room temperature (t1) R2: Resistance value at room temp.plus 100°C (t2)					
Short time overload	Resistance change ± (1 % + 0.05Ω) M evidence of mecha	ax. with no)	5.5 Permanent resistance change after the application of a potential of 2.5 times RCWV for 5 seconds.					
Insulation Resistance	Insulation resistand 10,000 MΩ Min	ce is		5.6 Resistors shall be clamped in the trough of a 90° metallic V-block and shall be tested at DC potential respectively specified in the above list for 60 +10/ -0 seconds.					
Dielectric withstanding voltage	No evidence of flamechanical damaginsulation break do	e,arcing or		5.7 Resistors shall be clamped in the trough of a 90° metallic V-block and shall be tested at AC potential respectively specified in the table 1 for 60 + 10/-0 seconds.					
Terminal strength	No evidence of me damage.	chanical		6.1 Direct load Resistance to a 2.5 kgs direct load for 10 secs. in the direction of the longitudinal axis of the terminal leads. Twist test: Terminal leads shall be bent through 90° at a point of about 6mm from the body of the resistor and shall be rotated through 360 about the original axis of the bent terminal in alternating direction for a total of 3 rotations.					
Resistance to soldering heat	Resistance change ± (1% + 0.05Ω) Ma evidence of mecha	ax. with no).	6.4 Permanent resistance change when leads immersed to 3.2 to 4.8 mm from the body in 350 °C ± 10°C solder for 3 ± 0.5 seconds					
Solderability	95 % coverage Mil	ı.		6.5 The area covered with a new , smooth clean , shiny and continuous surface free from concentrated pinholes. Test temp. of solder : 245°C ± 3°C Dwell time in solder : 2 ~ 3 seconds					
Temperature cycling	Resistance change ± (1% + 0.05Ω) Ma evidence of mecha	ax. with no).	7.4 Resistance charses for duty shapes Step 1 2	nge after continuous own below: Temperature -55°C ±3°C Room temp.	Time 30 mins 10~15 mins			
		,		3	+155°C ±2°C	30 mins			
		Т		4	Room temp.	10~15 mins			
Load life in humidity	, , ,	ilue than 100ΚΩ 00ΚΩ	ΔR/R ± 3 % ± 5 %	, , , , , , , , , , , , , , , , , , , ,					
	Resistance va	ue	ΔR/R	7.10 Permanent res	sistance change after				
Load life	Normal Type <	than 56KΩ 56KΩ	± 2 % ± 3 %	1,000 hours operating at RCWV with duty cycle of (1.5 hours "on", 0.5 hour "off") at 70°C ± 2°C ambient					

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