

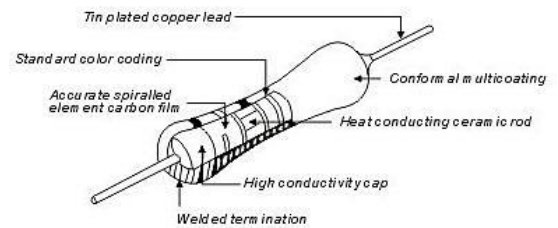
INTRODUCTION

The resistance temperature coefficient of carbon film resistors is relatively high. Their resistance value changes inversely with temperature. But, as they are big in volume, causing quick dissipation of heat and low temperature rise, they are good enough in quality stability and reliability, and are therefore popularly used in consumer electronic appliances. In addition to the above general features, our CR series carbon film fixed resistors have the following features in particular.

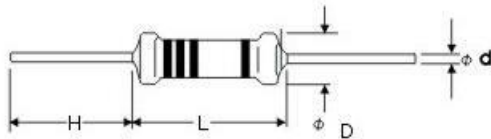
- Automated mass production, low prices.
- Selected superior quality materials to ensure stability and reliability.
- Variety of packaging-bulk, strip pack, 26mm and 52mm tape and reel, cut and formed, or radial Panaset / Avisert.

此電阻溫度係數非常高，溫度與電阻值成反比，由於體積大散熱快溫度上升不高，所以可靠度及穩定度極高也被廣泛使用。除此之外，CR 系列還有下列特性：

- 自動化大量生產，價格低。
- 選擇高品質材料，保證可靠度及穩定度。
- 各種形式包裝。



DIMENSIONS

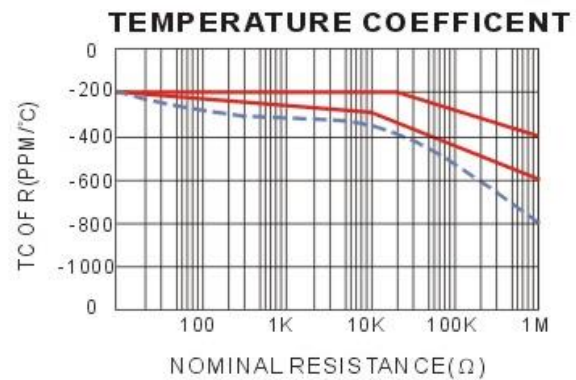
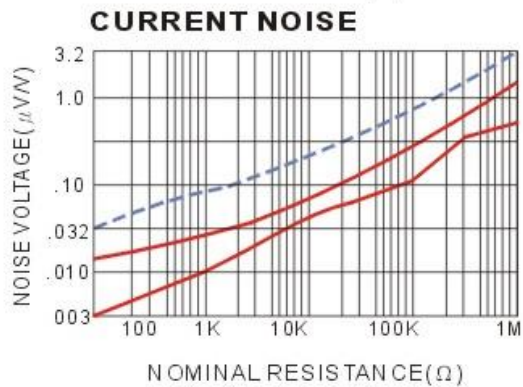
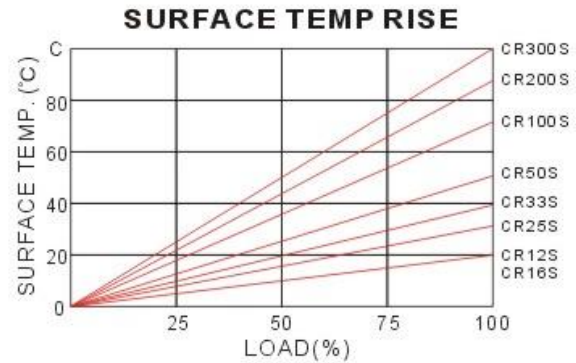
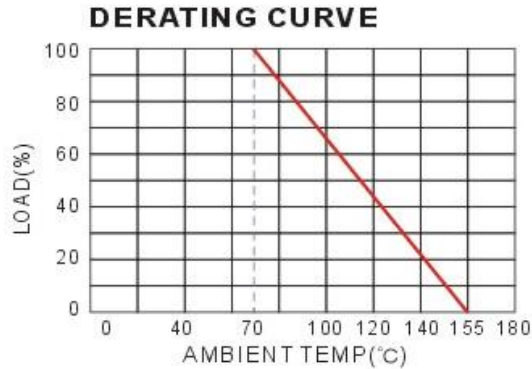


GENERAL SPECIFICATIONS

Mil Style	Style	Power Rating	Dimension (mm)				Max Working Voltage	Max Overload	Resistance Range	
			L	D	H(min)	d ±0.03			±2% (G)	±5% (J)
RD-50	CR-12 CR-16	1/8W 1/6W	3.7±0.4	1.8±0.2	27	0.46	200	400	10Ω~470K	0.1Ω~47M
RD-50	CR-25	1/4W	6.8±0.5	2.5±0.2	27	0.53	250	500	10Ω~1M	0.1Ω~47M
RD-60	CR-50	1/2W	9.0±1.0	3.2±0.5	25	0.56	250	500	10Ω~1M	0.1Ω~47M
RD-65	CR-100	1W	12±1.0	4.5±0.5	30	0.80	500	1,000	10Ω~1M	0.1Ω~47M
RD-70	CR-200	2W	16±1.0	5.5±0.5	30	0.80	500	1,000	10Ω~1M	0.1Ω~47M
RD-75	CR-300	3W	17±1.0	5.5±0.5	30	0.80	600	1,000	10Ω~470K	0.1Ω~47M

Mil Style	Style	Power Rating	Dimension (mm)				Max Working Voltage	Max Overload	Resistance Range	
			L	D	H(min)	d ±0.03			±2% (G)	±5% (J)
RD-50S	CR-25S	1/4WS	3.7±0.4	1.8±0.2	27	0.46	300	500	10Ω~470K	0.1Ω~47M
RD-60S	CR-50S	1/2WS	6.8±0.5	2.5±0.5	27	0.53	350	700	10Ω~1M	0.1Ω~47M
RD-65S	CR-100S	1WS	9.0±1.0	3.2±0.5	27	0.56	400	1,000	10Ω~1M	0.1Ω~47M
RD-70S	CR-200S	2WS	12±1.0	4.5±0.5	30	0.80	500	1,000	10Ω~1M	0.1Ω~47M
RD-75S	CR-300S	3WS	16±1.0	5.5±0.5	30	0.80	600	1,000	10Ω~1M	0.1Ω~47M
	CR-500S	5WS	17±1.0	6.0±0.5	30	0.80	700	1,500	10Ω~470K	0.1Ω~47M

CARBON FILM FIXED RESISTORS



CHARACTERISTICS

REQUIREMENTS	PERFORMANCE					TEST METHOD	
						JIS C 5202	MIL-STD-202
Operating Temp Range	-55°C~ +155°C					—	—
Temp. Coefficient (ppm/°C)	T.C.R TYPE	±450	-150 -700	-150 -1000	-150 -1300	5.2	METHOD 304
	0.125W	under 1KΩ	1.1KΩ~47KΩ	51KΩ~510KΩ	560KΩ~1MΩ		
	0.25W	under 1KΩ	1.1KΩ~150KΩ	160KΩ~2.2MΩ	2.4MΩ~5.1MΩ		
Noise (µV/V)	NOISE TYPE	0.1	0.3	0.6	1.0	5.9-11	METHOD 308
	0.125W & 0.16W		under 10KΩ	11KΩ~100KΩ	over 110KΩ		
	0.25W & over	Under 100KΩ	110KΩ~510KΩ	560KΩ~2.2MΩ	Over 2.4MΩ		
Dielectric Withstanding Voltage	No evidence of flashover or breakdown					5.7-A	METHOD 301
Resistance to solvents	Permanent Marking No physical or electrical damage or deterioration					—	METHOD 215
Short Time Overload	ΔRmax ±(1% + 0.05Ω)					5.5-A	—
Resistance to Soldering Heat	ΔRmax ±(1% + 0.05Ω)					6.4 350°C 3 sec	METHOD 210
Temperature Cycling	ΔRmax ±(0.5% + 0.05Ω)					7.4-55°C/ 85°C	METHOD 107
Vibration	ΔRmax ±(0.5% + 0.05Ω)					6.3 3-A	METHOD 204
Moisture Resistance	R > 100KΩ	ΔRmax ± 5%			7.9, 40°C 90-95% RH 1000hrs	METHOD 106	
	R > 100KΩ	ΔRmax ±(3% + 0.05Ω)					
Load Life	R > 100KΩ	ΔRmax ± 3%			7.10 70°C 1000hrs	METHOD 108	
	R > 100KΩ	ΔRmax ±(2% + 0.05Ω)					