

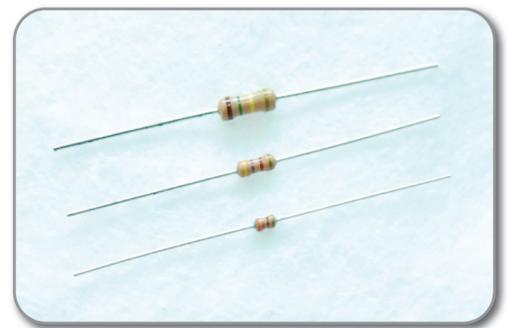
# CR series

## Carbon film Resistors

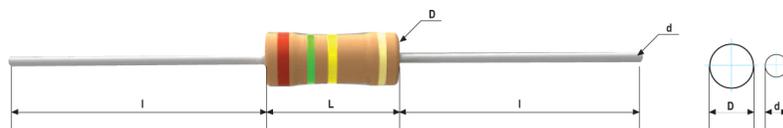
Carbon film Resistors are plated with Carbon film on ceramic rod and then is coated with Epoxy paint. Compact and can be used for parts that require a large capacity.

### Feature

- Highly stable against environmental conditions and overload
- Industry's lowest cost and widest selection
- Excellent Long-time stability
- Miniature size [CRS 1/2W, CRS 1/4W] result in 50% space saving
- Coating Color : Epoxy Resin
- CR (Standard) : Brown (1/8W~1/2W)
- CRS (MINI) : Pink (1/8W~1/2W)
- Making : Color Coding
- Available Type : TB (Axial Tapping Type 52mm)  
(please refer to 'Reference 1. Type' )



### Description



### Dimension

Type	Dimension (mm)			
	L	D	l	d
CR 1/8W	3.2±0.2	1.8±0.2	27.0±1.0	0.45±0.05
CRS 1/4W	3.2±0.2	1.8±0.2	27.0±1.0	0.45±0.05
CR 1/4W	6.0±0.2	2.4±0.2	26.0±1.0	0.58±0.05
CRS 1/2W	6.0±0.2	2.4±0.2	26.0±1.0	0.58±0.05
CR 1/2W	8.9±0.4	3.2±0.2	25.0±1.0	0.70±0.05

\*Specifications given herein are changeable under to discuss with user and maybe changed at anytime without prior notice.

## Rating

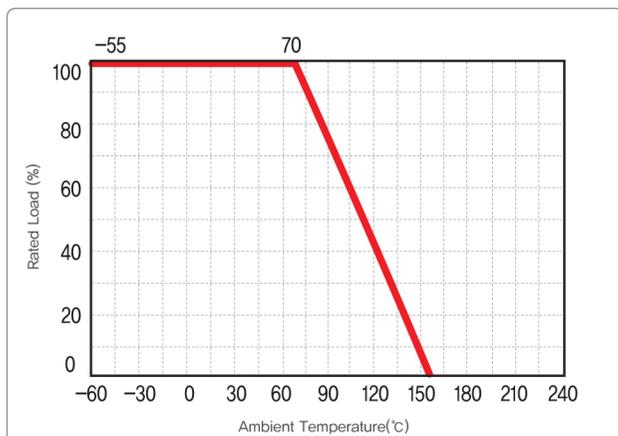
Type	Power Rating(W)	Max Working-Voltage(V)	Max Overload Voltage(V)	Dielectric Withstanding Voltage(V)	Operating Temp.(°C)	Resistance Range( $\Omega$ )	Resistance Tolerance (%)
CR 1/8W	0.125	150	300	300	-55 ~ +155	0 ~ 1M	J : $\pm 5$ G : $\pm 2$
CRS 1/4W	0.25	250	500	500			
CR 1/4W	0.25	250	500	500			
CRS 1/2W	0.5	300	600	600			
CR 1/2W	0.5	300	600	600			

\* Other than those listed above resistance tolerance is ever set in consultation with the user side.

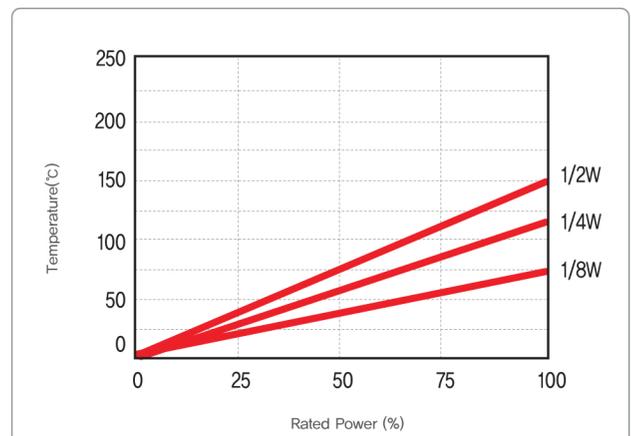
## Performance

Test Items	Performance Requirements	Test Methods
Resistance	With specified tolerance	Measure resistance at 25°C
Temperature Coefficient Resistance	With specified value	+25°C / +125°C
Short Time Over Load	$\pm 1\%$	Rated voltage x 2.5 for 5sec Max overload voltage
Resistance Against Soldering Test	$\pm 1\%$	260 $\pm 3$ °C, 2~2.5mm, 5 $\pm 1$ sec measure resistance After 1hr at room temp
Load Life in Temperature	$\pm 5\%$	40 $\pm 2$ °C, 90~95% RH, 1.5hr ON/0.5hr OFF, 120hr
Load Life in Moisture	$\pm 5\%$	70 $\pm 2$ °C, 1.5hr ON/0.5hr OFF, 120hr

## Derating Curve



## Surface Temperature Rise



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