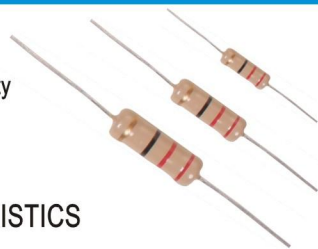


# 碳素皮膜電阻器 CARBON FILM RESISTORS

# CF



## ■ 制品介紹 INTRODUCTION

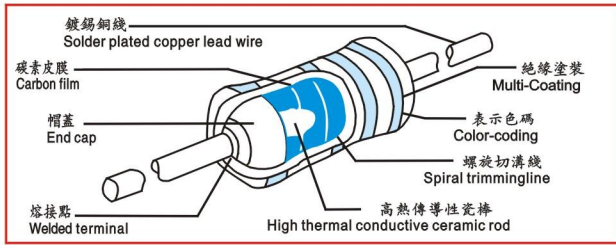
CF 碳素皮膜電阻器具有高信賴性、高穩定性及價格便宜等特價・廣泛應用於各種電子機器/設備。

CF: Carbon film resistor, is with the features of high reliability, stability, and lower price, and applied for various electronic equipments.

## ■ 特長 FEATURES

- 高信賴性 High reliability
- 高穩定性 High stability
- 價格便宜 Lower price

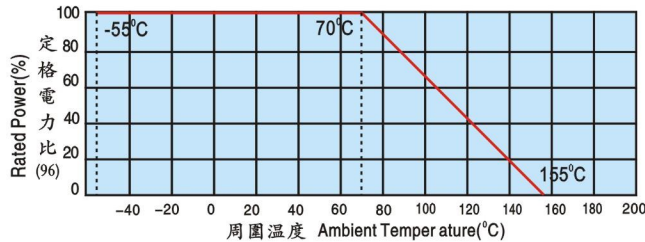
## ■ 構造 CONSTRUCTION



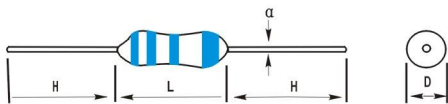
## ■ 特性 CHARACTERISTICS

試驗項目 Test Items	規格值 Specified Value
短時間過負荷 Short time overload	±(1%+0.05Ω)
耐電壓 Dielectric withstanding voltage	無損壞的異狀 No evidence of damage
絕緣抵抗 Insulation resistance	Over 10 <sup>4</sup> MΩ
端子強度 Terminal strength	無損壞的異狀 No evidence of damage
耐久性(耐濕負荷) Moisture load life	R < 100KΩ ±3% R ≥ 100KΩ ±5%
耐久性(定格負荷)70°C Load life at 70°C	R < 100KΩ ±(2%+0.05Ω) R ≥ 100KΩ ±3%
溫度循環 Temperature cycling	±(1%+0.05Ω)
焊錫耐熱性 Resistance to soldering heat	±(0.5%+0.05Ω)
焊錫附著性 Solderability	Over 95%
耐溶劑性 Resistance to solvent	無損壞的異狀 No evidence of damage

## ■ 負荷輕減曲線 DERATING CURVE



## ■ 形狀 STYLE



## ■ 溫度係數 Temp. coefficient of resistance

Type	T.C.R.	± 450PPM/°C	-700PPM/°C	-1000PPM/°C	-1300PPM/°C
1/6W, 1/4WS	< 47KΩ	51K ~ 100KΩ	110K ~ 330KΩ	> 360KΩ	
Over 1/4W, 1/2WS	< 100KΩ	110K ~ 1MΩ	1.1M ~ 2.2MΩ	> 2.4MΩ	

## ■ 尺寸 DIMENSIONS

形名 TYPE	尺寸 Dimensions (mm)				額定功率 Power Rating	最高工作電壓 Max Working Voltage	最高過負荷電壓 Max Overload Voltage	耐電壓 Dielectric Withstanding Voltage	電阻值範圍 Resistance Range	
	L	D	d	H						
普通型 Normal size	CF1/6W	3.2±0.2	1.8±0.2	0.40±0.02	25±3	0.16W	150V	300V	300V	1Ω~10M
	CF1/4W	6.5±0.5	2.3±0.3	0.40±0.02	25±3	0.25W	250V	500V	500V	0.1Ω~22M
	CF1/2W	9.0±1.0	3.2±0.5	0.50±0.02	25±3	0.5W	350V	700V	500V	0.1Ω~22M
	CF1W	12.0±1.0	4.5±0.5	0.65±0.02	25±3	1W	500V	1000V	1000V	0.1Ω~22M
	CF2W	15.5±1.0	5.0±1.0	0.72±0.02	27±3	2W	500V	1000V	1000V	0.1Ω~22M
小型化 Small size	CF3W	17.5±1.0	6.0±1.0	0.72±0.02	27±3	3W	600V	1100V	1000V	0.1Ω~22M
	CF5W	24.5±1.0	8.5±1.0	0.75±0.02	27±3	5W	700V	1200V	1000V	0.1Ω~22M
	CF1/4WS	3.2±0.2	1.8±0.2	0.40±0.02	25±3	0.25W	200V	400V	400V	0.1Ω~22M
	CF1/2WS	6.5±0.5	2.3±0.3	0.40±0.02	25±3	0.5W	300V	600V	500V	0.1Ω~22M
	CF1WS	9.0±1.0	3.2±0.5	0.50±0.02	25±3	1W	400V	800V	700V	0.1Ω~22M
CF2WS	12.0±1.0	4.5±0.5	0.65±0.02	25±3	2W	500V	1000V	1000V	0.1Ω~22M	
CF3WS	15.5±1.0	5.0±0.5	0.75±0.02	27±3	3W	500V	1000V	1000V	0.1Ω~22M	
CF5WS	17.0±1.0	6.0±1.0	0.72±0.02	27±3	5W	700V	1100V	1100V	0.1Ω~22M	

NOTE: Specification can be constructed on request.

## ■ 訂貨方式 HOW TO ORDER

CF	1/4W	T52	J	10K																																								
種類 Type	預定電力 Power Rating	形狀/包裝方式 Form/ Packaging	電阻值誤差率 Resistance Tolerance	公稱電阻值 Nominal Resistance																																								
	<table border="1"> <tr><th>Nomal Size</th><th>Small Size</th></tr> <tr><td>1/6W</td><td>1/4WS</td></tr> <tr><td>1/4W</td><td>1/2WS</td></tr> <tr><td>1/2W</td><td>1WS</td></tr> <tr><td>1W</td><td>2WS</td></tr> <tr><td>2W</td><td>3WS</td></tr> <tr><td>3W</td><td>5WS</td></tr> <tr><td>5W</td><td></td></tr> </table>	Nomal Size	Small Size	1/6W	1/4WS	1/4W	1/2WS	1/2W	1WS	1W	2WS	2W	3WS	3W	5WS	5W		<table border="1"> <tr><th>S.P</th><th>Bulk (Straight)</th></tr> <tr><td>M</td><td>Bulk, M-Form series (Horizontal Forming)</td></tr> <tr><td>U</td><td>Bulk, U-Form series (Vertical Forming)</td></tr> <tr><td>Txx</td><td>Boxed (26.52.63.73.83mm width taping)</td></tr> <tr><td>T/R</td><td>Tape on reel packing</td></tr> <tr><td>U/T</td><td>Radial Taping</td></tr> </table>	S.P	Bulk (Straight)	M	Bulk, M-Form series (Horizontal Forming)	U	Bulk, U-Form series (Vertical Forming)	Txx	Boxed (26.52.63.73.83mm width taping)	T/R	Tape on reel packing	U/T	Radial Taping	<table border="1"> <tr><th>J</th><th>±5%</th></tr> <tr><td>K</td><td>±10%</td></tr> <tr><td>G</td><td>±2%</td></tr> </table>	J	±5%	K	±10%	G	±2%	<table border="1"> <tr><th>3-Digit: E-24, 12 Series</th></tr> <tr><td>e.g. OR12 = 0.12Ω</td></tr> <tr><td>120R = 120Ω</td></tr> <tr><td>1K2 = 1.2KΩ</td></tr> <tr><td>12K = 12KΩ</td></tr> <tr><td>12M = 12MΩ</td></tr> </table>	3-Digit: E-24, 12 Series	e.g. OR12 = 0.12Ω	120R = 120Ω	1K2 = 1.2KΩ	12K = 12KΩ	12M = 12MΩ
Nomal Size	Small Size																																											
1/6W	1/4WS																																											
1/4W	1/2WS																																											
1/2W	1WS																																											
1W	2WS																																											
2W	3WS																																											
3W	5WS																																											
5W																																												
S.P	Bulk (Straight)																																											
M	Bulk, M-Form series (Horizontal Forming)																																											
U	Bulk, U-Form series (Vertical Forming)																																											
Txx	Boxed (26.52.63.73.83mm width taping)																																											
T/R	Tape on reel packing																																											
U/T	Radial Taping																																											
J	±5%																																											
K	±10%																																											
G	±2%																																											
3-Digit: E-24, 12 Series																																												
e.g. OR12 = 0.12Ω																																												
120R = 120Ω																																												
1K2 = 1.2KΩ																																												
12K = 12KΩ																																												
12M = 12MΩ																																												