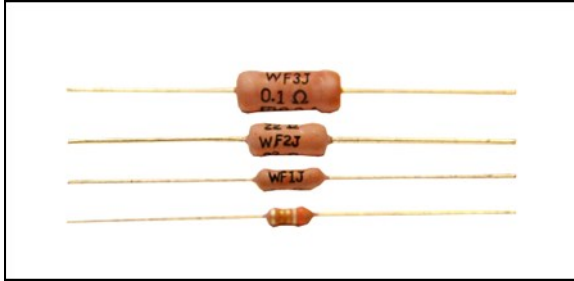


FUSING RESISTOR

WFU 高能量突波繞線保險絲電阻器
FUSIBLE RESISTOR (Standard Type)

WFS 小型高能量突波繞線保險絲電阻器
HEAT ENERGY SURGE WIRE WOUND FUSIBLE RESISTOR (Small Type)



塗料顏色：Coating Color

標準品 Standard Type：Gray

小型品 Small Type：Pink

標示：Marking

色碼：Color Code (S1/2W)

文字：Alphanumeric (1/2W~S3W)

特性 Feature

◎電壓式繞線保險絲提供高突波能量的特性，準確的熔斷性能，及在額定功率下作業的高穩定性

◎ The voltage type wire wound fusible resistor can provide reliable fusing behavior stable performance and endurance to surge voltage.

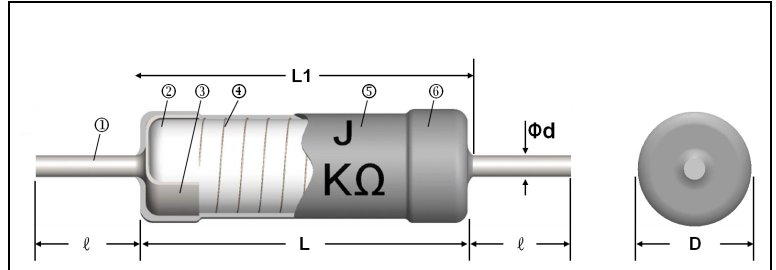
◎產品符合歐盟 RoHS 要求

◎ Products meet EU-RoHS.

參考規格 Reference standards

● JIS C 5201-1

結構圖 Construction



1	端子線	Lead wire	4	繞線	Wire wound
2	瓷棒	Ceramic base	5	標示	Marking or color code
3	鐵帽	Cap	6	絕緣塗料	Insulation coat

外型尺寸 Dimensions

Rated Power (W)	Dimensions (mm)					Weight (g) (1000pcs)
	L	L1 Max.	D	Ød	ℓ	
S1/2	6.0±0.3	7	2.4±0.1	0.6±0.05	28±3	200
1/2,S1	9.0±0.5	11	3.0±0.5			285
1,S2	12±1	15	4.5±0.5	0.8±0.05	38±3	728
2,S3	16±1	18	5.5±0.5			1380

料號編碼 Type composition

例 Example

WF	U	12	J	R100	A520	NH
型名 Type	品名 Size	額定功率 Rated Power	誤差值 Tolerance	電阻值(Ω) Resistance	二次加工 Forming	端子線 Lead Wire
	U: Standard	12:1/2W	J±5%	R100=0.1	See table	熱鍍線 Heat plated
	S: Small	01:1W		1R00=1		
		02:2W		10R0=10		
		03:3W		1000=100		

二次加工對應表 Taping & Forming Matrix

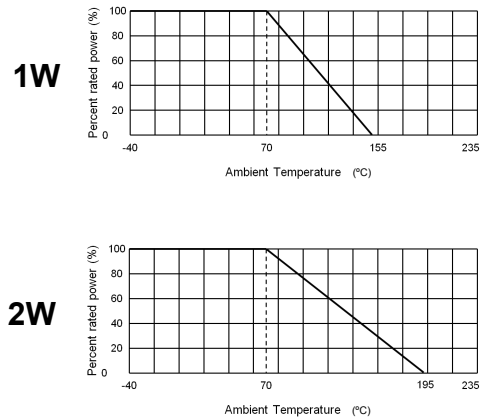
Rated Power (W)	Taping			Radial Taping		L Forming					C Forming				F Forming				M Forming			D Forming			
	A52	A64	A73	FT	YT	L10	L12.5	L15	L20	L30	C12.5	C15	C20	C30	FA5	FB5	FC5	FD5	M12.5	M15	M20	D12.5	D15	D20	
S1/2	○	-	-	○	-	○	-	-	-	-	-	-	-	-	○	○	○	○	-	-	-	-	-	-	-
1/2,S1	○	-	-	○	○	-	○	-	-	-	○	-	-	-	○	○	○	○	○	-	-	-	○	-	-
1,S2	○	○	-	○	○	-	-	○	-	-	-	○	-	-	○	○	○	○	-	○	-	-	○	-	-
2,S3	-	○	-	-	○	-	-	-	○	-	-	-	○	-	○	○	○	○	-	-	○	-	-	-	○

額定 Ratings

Rated Power (W)	阻值範圍 Resistance Range (Ω)						最高使用電壓 Max. Working Voltage	最高過負荷電壓 Max. Overload Voltage	耐電壓 Dielectric Withstanding Voltage	溫度係數 T.C.R.	包裝 Taping/Ammo,Forming/Bulk pack (pcs)					
	J±5% (E24)										A52	A64	FT	YT	L	C
S1/2	0.1 ~ 150						100V	150V	100V	≤ 1Ω : ± 500ppm/°C > 1Ω : ± 300ppm/°C	2500	-	2000	2000	2500	2500
1/2,S1											2000	-	1000	2000	2500	2500
1,S2											1000	1000	1000	1000	1000	1000
2,S3											500	500	1000	1000	1000	1000

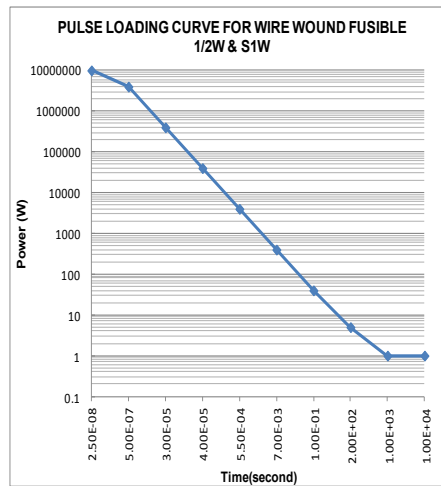
■ 額定溫度下降曲線圖 Derating curve

例 Example



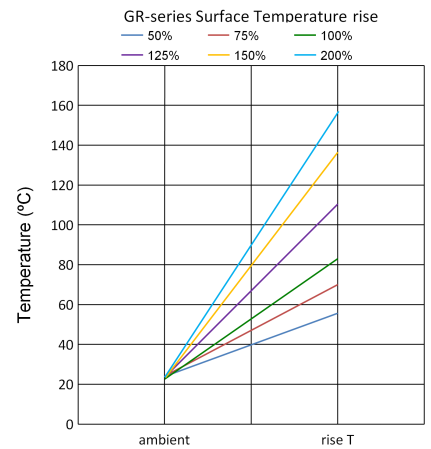
■ 突波特性

例 Example



■ 額定功率表面溫升

Surface Temperature Rise
Vs. Loaded Power



■ 熔斷特性 Fusing characteristics

殘留阻值為公稱阻值 100 倍以上 (Residual resistance \geq 100 times nominal resistance)

Power Rating I=constant	Opening Time	1/2W & S1W	Power Rating I=constant	Opening Time	1W & S2W	Power Rating I=constant	Opening Time	2W & S3W
16W	10 sec Min		24W	10 sec Min		23W	10 sec Min	
18W	3sec ~ 60 sec Max	28W	8sec ~ 45 sec Max	40W	10sec ~ 30 sec Max			
20W	2 sec ~ 30 sec Max	32W	5 sec ~ 30 sec Max	48W	3 sec ~ 8 sec Max			
22W	1sec ~ 15sec Max	36W	2sec ~ 15sec Max	60W	2sec ~ 5sec Max			

■ 性能 Performance

試驗項目 Test Items	規格值 Performance Requirements	試驗方法 Test Methods
電阻值 Resistance	規定的誤差值內 Within specified tolerance	測量點從端蓋 10mm Measuring points are 10mm from the end cap
溫度係數 T.C.R.	規定值內 Within specified T.C.R.	室溫+100°C Room temperature +100°C
短時間過負荷 Short time overload	$\pm(1\%+0.05\Omega)$	4 倍額定功率, 5 秒 4 times the rated power for 5 seconds
負荷壽命 Load life	$\pm(5\%+0.1\Omega)$	Rated voltage at 70°C for 1,000 hours 1.5hr ON / 0.5hr OFF Cycles
耐濕負荷壽命 Load life in humidity	$\pm(5\%+0.1\Omega)$	10% rate power load 40°C, 95% RH for 1,000 hours; 1.5h ON / 0.5h OFF cycle
耐濕性 Moisture resistance	$\pm(1\%+0.05\Omega)$	40°C, 95% RH, 240 小時 40°C, 95% RH for 240 hours
溫度循環 Temperature cycle	$\pm(1\%+0.05\Omega)$	5 cycles for -25°C (30min) : room temp. (30min) ~ +85°C (30min) room temp. (30min)
焊錫效果 Soldeability	95 % (min) coverage	Temp. of solder 245°C \pm 5°C duration of immersion 5s \pm 0.5s
絕緣電阻 Insulation resistance	>1,000M Ω	500V 絕緣測試 1 分鐘 500V insulation test 1min.
不燃性 Flameproof	無燃燒現象 No evidence of flaming or arcing	AC voltage of 2,4,8,16,32 times the power rating for 1min. ($V \leq$ 4 times max. working voltage)