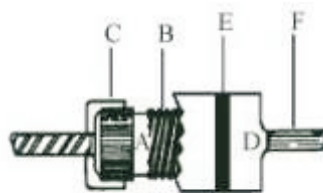
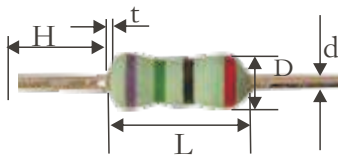




## ● Feature

- I .High power in small size
- II .Low temperature coefficient, high precision, and good high frequency performance.
- III .Operating ambient temperature:-55℃ ~+155℃
- IV .Film the metal in vacuum, the surface coating is blue resin with the good waterproof.
- V .Resistance tolerance: ± 1%, ± 2%, ± 5%.
- VI .Non-inductive

## ● Construction Drawing



A	B	C	D	E	F
High AL <sub>2</sub> O <sub>3</sub>	High Stability Electric Conduction Film	Iron Cap	Epoxy Resin Coating	Color Ring	Tinned copper lead wire

## ● Dimensions and Voltage Performance

Type	Power	Resistance Range (Ω)	Dimensions(mm)					Max. working voltage	Max. overload voltage	Max. Pulse voltage	Max. Insulation voltage
			L±1	t Max	D±0.5	d±0.05	H±3.0				
NFR	1/4W	20~2K	6.0	1.5	2.3	0.75	26.0	$\sqrt{PR}$	700V	1000V	500V

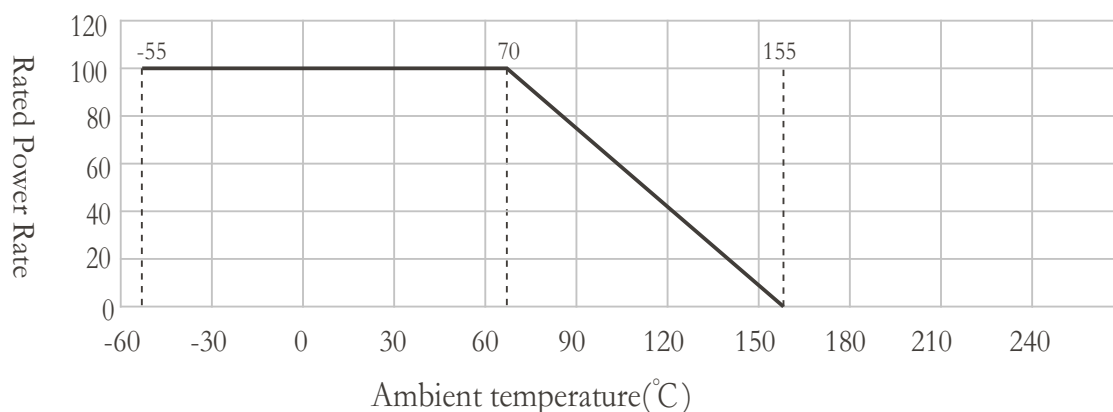
Note :

- a、 Rated voltage=  $\text{Power} \times \sqrt{\text{Resistance Value}}$
- b、 If the calculated rated voltage is higher than max.working voltage, it will be got the lower value.

## ● Reference Standards

JIS C 5201-1

## Derating Curve



## Performance

Test Items	Performance	Test Methods(JIS C 5201-1)
Temperature coefficient	$-100\text{ppm}/^{\circ}\text{C} \leq \text{TCR} \leq 100\text{ppm}/^{\circ}\text{C}$	Test resistance value at normal temperature and normal temperature added 100°C, calculate °C resistance value change rate.
Short time overload	$\Delta R \leq \pm (0.5\%R_0 + 0.05\Omega)$	2.5X rated power or Max. overload voltage(get the lower) for 5seconds.
Pulse overload	$\Delta R \leq \pm (1\%R_0 + 0.05\Omega)$	At 4Xrated power or Max. pulse overload voltage(get the lower)cycle 10000 $\pm$ 200 times(1second on 25 seconds off)
Resistance to soldering heat	$\Delta R \leq \pm (0.5\%R_0 + 0.05\Omega)$	Immerge into the 350 $\pm$ 10°C tin stove for 2~3 seconds
Solderability	Tth soldering area is over 95%	Immerge into the 245 $\pm$ 3°C tin stove for 2~3 seconds
Temperature cycle	$\Delta R \leq \pm (1.5\%R_0 + 0.1\Omega)$	At -55°C for 30min, then at +25°C for 10~15min, then at +125°C for 30min, then at +25°C for 10~5, min, total 5cycles.
Load life in humidity	$\Delta R \leq \pm (2\%R_0 + 0.1\Omega)$	Overload rated voltage or Max.working voltage(get the lower)for 1000hours(1.5hours on and half-hour off) at the 40 $\pm$ 2°C and 90~95% relative humidity.
Load life in heat	$\Delta R \leq \pm (5\%R_0 + 0.1\Omega)$	Overload rated voltage or Max.working voltage(get the lower)for 1000hours(1.5hours on and half-hour off) at the 70 $\pm$ 2°C.

## Ordering Information

例 example

NFR	025A	G	0	T520	75R00
Product Name	Power	Tol	Special Code	Forming	Ohm
NFR	025A=0.25W	F= $\pm$ 1% G= $\pm$ 2% J= $\pm$ 5%		T260=T26 T520=T52 T710=T71 M001=M F001=F B001=B	20R00=20 $\Omega$ 75R00=75 $\Omega$ 2KR00=2K $\Omega$