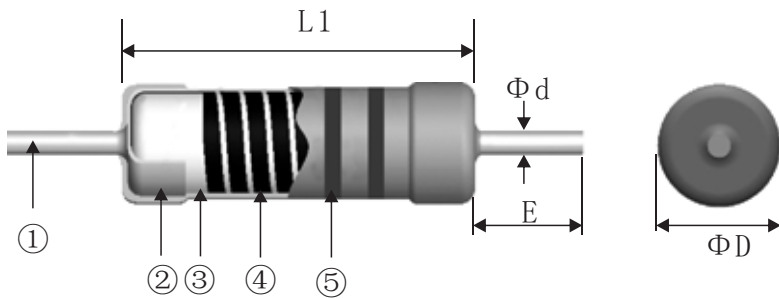


● Feature

- I Flameproof and insulating coating designed to assure safe usage by special non-flammable silicon-base. (Eqyuvakebt to UL94V-0)
- II Small size are good for high density application
- III Low inductance value (50nH—1uH)
- IV Products meet Eu-RoHS.

● Construction



①	Lead wire
②	Ceramic base
③	Cap
④	Conductive film
⑤	Marking color code

● Dimensions

Reted power(W)	Dimensions(mm)				Weight(g) (1000pcs)
	L	ΦD	Φd	E	
1/4W,1/2WS	6±0.3	2.4±0.1	0.6±0.05	28±2	210
1/2W,1WS	9±0.5	3.3±0.5		28±3	285
1W,2WS	12±1	4.5±0.5	0.8±0.05	38±3	728
2W,3WS	16±1	5.5±1.0			1380
3W,5WS	18±1	6.0±1.0			1780
5W,7WS	25±1	8.5±0.5			3768
7W	25±1	8.5±0.5			3768

● Ordering Information

Example

NIR 012 J 100 S
 (1) (2) (3) (4) (5)
 Type Reatd power Tolerance Reisistance Small size

(1) Type: NIR Resistor

(2) Reatd power: 014=1/4W, 012=1/2W, 01=1W, 02=2W, 03=3W, 05=5W, 07=7W

(3) Tolerance: G=±2%, J=±5%

(4) Reisistance: R100=0.1Ω, 1R00=1Ω, 10R0=10Ω, 10K00=1KΩ, 1M00=1MΩ

(5) Small size

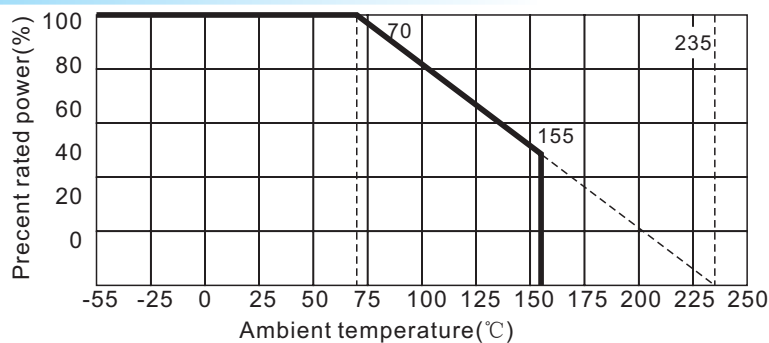
Reference Standards

JIS C 5201-1

Power 、 Resistance And Etc.

Rated Power(W)	Resistance Range(Ω)	Max working Voltage(V)	Dielectric Withstanding Voltage(V)	T.C.R (PPM/ $^{\circ}$ C)	Taping/ Ammo pack (pcs)				
1/4W,1/2WS	2 Ω —12M	750V	500V	$\leq 300\Omega$: $\pm 350\text{PPM}/^{\circ}\text{C}$ $> 300\Omega$: $\pm 200\text{PPM}/^{\circ}\text{C}$	5000	2500	/	2000	/
1/2W,1WS					/	2000	/	1000	1000
1W,2WS					/	1000	1000	1000	1000
2W,3WS	2 Ω —14M	1000V			/	500	500	1000	1000
3W,5WS					/	/	/	/	/
5W,7WS	2 Ω —1M	1500V			/	/	/	/	/
7W					/	/	/	/	/

Derating Curve



Performance

Test Items	Performance Requirements	Test Methods(JIS C 5201-1)
Resistance	Within specified tolerance	Measuring points are 10mm from the end cap
T.C.R.	Within specified T.C.R	Room temperature+100 $^{\circ}$ C
Short time overload	$\pm (1\%+0.05\Omega)$	4 times the rated power for 5 seconds
Load life	$\pm (5\%+0.1\Omega)$	Rated voltage at 70 $^{\circ}$ C for 1,000 hours 1.5hr ON/0.5hr OFF Cycles
Load life in humidity	$\pm (5\%+0.1\Omega)$	Rated voltage at 40 $^{\circ}$ C ,95%RH for 1,000 hours
Moisture resistance	$\pm (1\%+0.05\Omega)$	40 $^{\circ}$ C ,95%RH for 240 hours
Temperature cycle	$\pm (1\%+0.05\Omega)$	5 cycles for -25 $^{\circ}$ C (30min);room temp.(30min) \sim +85 $^{\circ}$ C (30min)room temp.(30min)
Solderability	95%(min)coverage	Temp. of solder 245 $^{\circ}$ C \pm 5 $^{\circ}$ C duration of immersion 3s \pm 0.5s
Resistance to soldering heat	$\pm (1\%+0.05\Omega)$	260 $^{\circ}$ C \pm 5 $^{\circ}$ C for 10 seconds 350 $^{\circ}$ C \pm 10 $^{\circ}$ C for 3.5 seconds
Insulation resistance	> 1,000M Ω	500V insulation test 1 min.
Flameproof	No evidence of flaming or arcing	AC voltage of 2,4,6,8,16,32 times the power rating for 1 min.(V \leq 4times max, working voltage)