



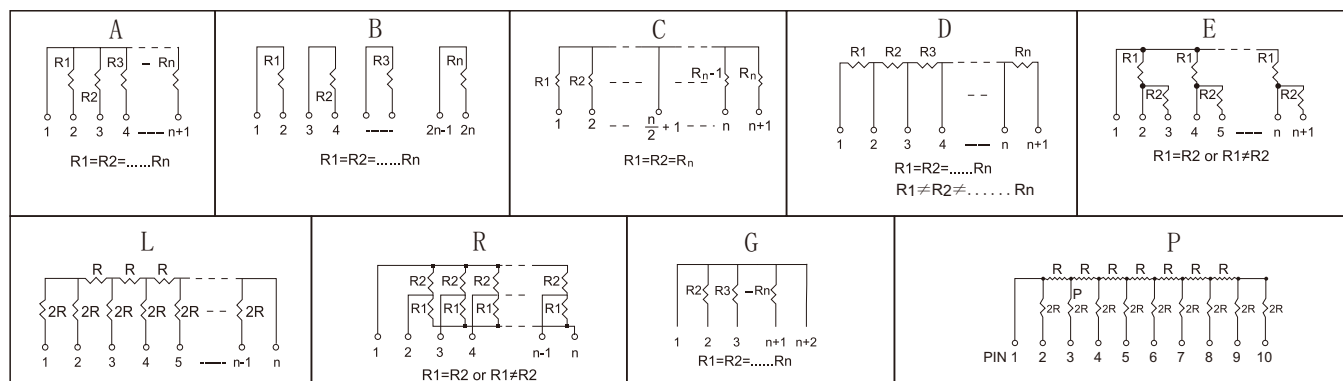
Features

- Miniature, high density packaging
- High reliability RU02 paste

Application

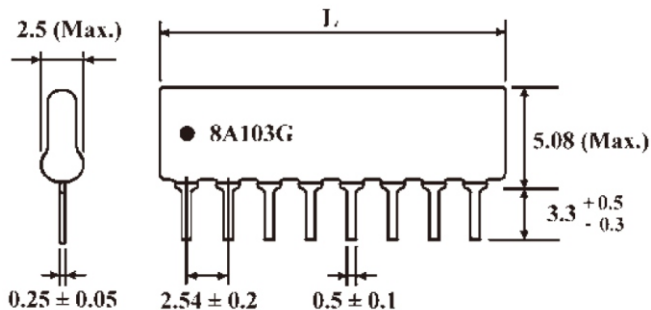
- Control circuit V.C.R.
- Air-conditioner
- Computer, color TV
- Facsimile

Construction



*Custom design circuit could be available according to the request.

Dimensions



Type	code	Dimensions(mm)	
		PIN	L
GR	A	4PIN	10.2
	B	5PIN	12.7
	C	6PIN	15.3
	D	7PIN	17.8
	E	8PIN	20.4
	L	9PIN	22.9
	R	10PIN	25.4
	G	11PIN	28.0
	P	12PIN	30.5
		13PIN	33.1
		14PIN	35.6

Ordering Information

Example:

GR	0.2	4	A	F	10K00
(1)	(2)	(3)	(4)	(5)	(6)
Series Name	Power Rating	Pin	Code	Resistance Tolerance	Resistance

(1)Type:GR SERIES

(2)Power Rating:0.2=0.2W,0.125=0.125W

(3)pin:4、5、6、7、8、9、10、11、12、13、14

(4)Code:A、B、C、D、E、L、R、G、P

(5)Tolerance: F=±1%,G=±2%,J=±5%

(6)Resistance Value:0R100=0.1Ω,0R220=0.22Ω,10R00=10Ω,10K00=10KΩ,1M000=1MΩ

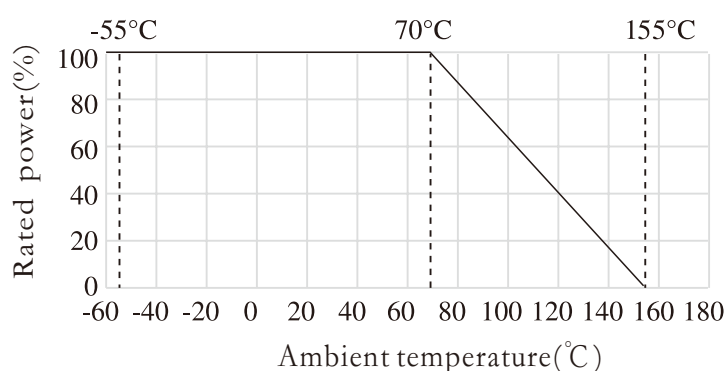
Reference Standards

JISC 5201-1

Applications And Ratings

Type	Type	Rated Power(W)	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Resistance Range(Ω)	Tolerance	Temperature Range($^{\circ}\text{C}$)
GR	B	0.2	100V	150V	200V	10 Ω ~10M Ω	F $\pm 1\%$ G $\pm 2\%$ J $\pm 5\%$	-55 $^{\circ}\text{C}$ ~ +155 $^{\circ}\text{C}$
	A and other	0.125						

Derating Curve



Performance

Items	Requirements(JIS C 5201-1)
Temperature coefficient	50 Ω ~1M Ω : $\pm 200\text{PPM}/^{\circ}\text{C}$ <50 Ω & >1M Ω : $\pm 250\text{PPM}/^{\circ}\text{C}$
Shor-time overload	$\triangle R/R \leq \pm (0.5\%+0.1\Omega)$
Insulation resistance	$\geq 10000\text{M}\Omega$
Dielectric withstanding voltage	No evidence of flash, arcing or insulation
Terminal strength	$\triangle R/R \leq \pm (0.5\%+0.1\Omega)$
Soldering heat	$\triangle R/R \leq \pm (0.5\%+0.1\Omega)$
Solderability	Min.95% coverage
Thermal shock	$\triangle R/R \leq \pm (0.5\%+0.1\Omega)$
Temperature cycling	$\triangle R/R \leq \pm (0.5\%+0.1\Omega)$
Load life in humidity	$\triangle R/R \leq \pm (3\%+0.1\Omega)$
Load life	$\triangle R/R \leq \pm (3\%+0.1\Omega)$