



## ● Features

Easy replacement of vitreous enamel resistors with no cost increase and no performance loss.

The whole assembly is coated with multi-layer silicone coating to give maximum wire protection form -55° C to +350° C.

Performance improvement is obtained by close tolerance, very low temperature coefficient and excellent stability in operation under severe environmental conditions.

High level reliability due to ceramic core chemically inert and centerless ground for uniformity, selected wire element and completely welded construction terminal to terminal.

## ● Dimensions



Type	Rated power (W)	Dimensions		
		D	L	d
GS-3	3	5.2 ± 0.5	12 ± 0.8	0.8
GS-4	4	6.0 ± 0.5	13.5 ± 0.8	0.8
GS-6	6	8.0 ± 0.5	22 ± 1.6	0.8
GS-7	7	8.0 ± 0.5	25 ± 1.6	0.8
GS-10	10	9.5 ± 0.5	35 ± 1.6	0.9
GS-13	13	9.5 ± 0.5	46 ± 1.6	0.9
GS-15	15	9.5 ± 0.5	51 ± 1.6	0.9

## ● Reference Standards

IEC60115-1

## Ordering Information

Example:

GS	10	J	47R0	T
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	Resistance	Temperature

(1)Type: GS SERIES

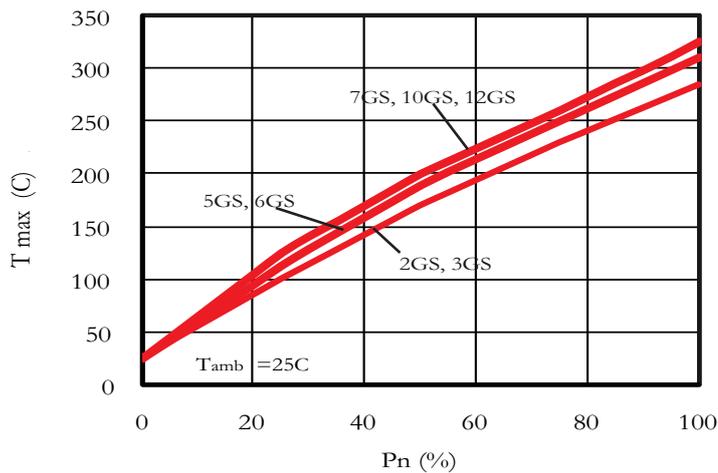
(2)Power Rating: 3=3W 4=4W 7=7W 10=10W.....

(3)Tolerance: J= ± 5% F= ± 1%

(4)Resistance Value:47=47R0,

(5)Temperature: ± 100 to ± 30 ppm from R10 to Rmax

## Temperature rising curve



## Temperature rising curve

Type	MIL PRF 26H Type	Rated power(W)	Resistance range(Ohm)	Voltage Limit(V)	Temperature rise(°C/W)	Weight(g)
GS-3	RW69V	3	0.01- 5K6	130	91	1.2
GS-4	-	4	0.01- 10K	200	74	1.8
GS-6	RW74U	6	0.01- 24K	380	52	3.2
GS-7	RW67V	7	0.01- 27K	435	45	3.8
GS-10	RW55V	10	0.01- 47K	685	30	7.0
GS-13	RW68V	13	0.01- 68K	940	24	9.0
GS-15	RW56V	15	0.01- 82K	1100	21	10.0

## ● Electronics Specifications

These resistors meet or exceed the requirements of MIL-PRF-26 H specifications

Ohmic values	E24 Series. For out of range or not standard ohmic values, consult KWX Technical Dept.
Tolerance	Standard 5%. Available on request up to 1% (for values >R047).
Temperature coefficient	Typical values: $\pm 100$ to $\pm 30$ ppm from R10 to Rmax Consult factory for special applications
Dielectric strength	500 Vdc 2GS to 6GS      700 Vdc 7GS to 12GS
Insulation resistance	1000 MOhm minimum.      100 MOhm after moisture test
Sovraccarico	5s at 10 times rated power      5s at 5 times rated power 2GS and 3GS
Non inductive	Models of equivalent physical and electrical specifications are also available with non inductive Ayrton-Perry winding

## ● Mechanical Specifications

Terminal strength	10 lb. pull test.
Solderability	Continuous, satisfactory coverage when tested in accordance to MIL-PRF-26 H.

## ● Materials

Core	Ceramic steatite or alumina centerless ground
Resistive element	Copper-nickel alloy or nickel-chrome alloy with specific temperature coefficient
End caps	Stainless steel
Coating	Special high temperature silicone
Standard terminals	LF tinned copper or LF tinned copperweld Point of measure: L + 20mm

## ● Derating

These resistors can be used in a temperature range from  $-55^{\circ}$  C to  $+350^{\circ}$  C  
 To use these components in applications with working temp. higher  $+25^{\circ}$  C You have to make a power reduction with linear derating from nominal power to zero at  $350^{\circ}$  C