

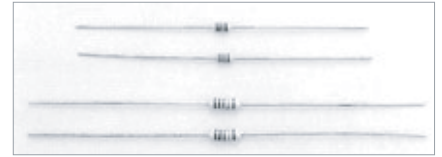


# Miniature Glazed Metal Film Fixed Resistors

## ■ Outline, Features

This resistor (Model No. HGS) is miniature & lightweight type of High Resistance Fixed Resistor (Model No. HMGL).

It is suitable for replacement of Miniature Metal Film Fixed Resistor (Model No. RNM), Miniature Carbon Film Fixed Resistor (Model No. NAT), requiring high resistance range of 100KΩ or more.

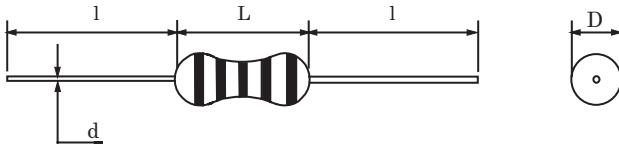


## ■ Ratings

Model No.	Rated Power	Max. Working Voltage	Max. Overload Voltage	Resistance Range	T.C.R.	Resistance Tolerance	Rated Ambient Temperature	Operating Temperature Range
	[W]	[V]	[V]	[Ω]	[ppm/°C]	[%]	[°C]	[°C]
HGS1/4	0.25	250	500	100k~1.0M	±100	±1.0	+70	-55~+155
				100k~2.2M	±200	±5.0		
HGS1/2	0.5	350	700	100k~1.0M	±100	±1.0		
				100k~10M	±200	±5.0		

Rated Voltage: Either Calculated Rated Voltage ( $=\sqrt{\text{Rated Power} \times \text{Nominal Resistance}}$ ) or Maximum Working Voltage, whichever is smaller.

## ■ Dimensions & Shape

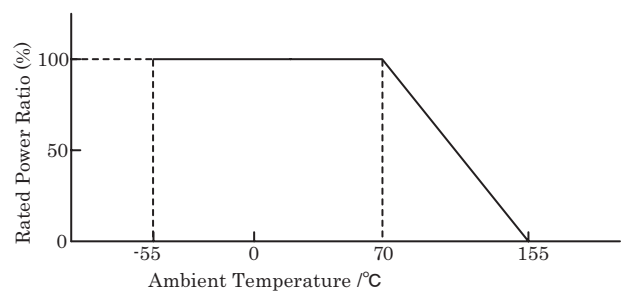


Model No.	Dimensions (mm)			
	L	D	l	d
HGS1/4	3.4max.	1.7±0.3	27min.	0.5±0.05
HGS1/2	6.4±0.8	2.3±0.4	27min.	0.6±0.1

☆J (5% tolerance) type has 4-color band.

☆Body color: Ivory

## ■ Derating Curve



## ■ Model Designation

HGS 1/4 C3 1004 F TU  
 ① ② ③ ④ ⑤ ⑥

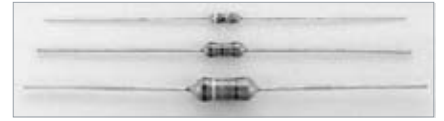
	Symbol	Description
① Model No.	HGS	MINIATURE PAINT INSULATED TYPE GLAZED METAL FILM RESISTORS
② Power Rating	1/4	0.25W
	1/2	0.5W
③ T.C.R.	C3	±100ppm/°C
	C4	±200ppm/°C
④ Resistance	Resistance Designation	
	1004	F Class: 4-digit, E-96 series
	105	J Class: 3-digit, E-24 series
For detail description about resistance marking, please refer to "General Specifications"		
⑤ Tolerance	F	±1.0%
	J	±5.0%
⑥ Packaging	TU, TP	Axial Taping
	For detail description about forming and taping specification, please refer to Taping Specification Page in "General Specifications"	



# Paint Insulated Glazed Metal Film Fixed Resistors

## Feature

Model No. "HMGL" is glazed metal film resistor with high resistance.  
 Model No. "HMGL" is suitable for circuit protection for surges.



## Power Rating

Model No.	Power Rating [W]	Max. Working Voltage [V]	Max. Overload Voltage [V]	T.C.R.	Resistance Range[Ω]				Rating Ambient Temp. [°C]	Operating Temp. Range [°C]
					Tolerance[%]					
					±0.5	±1.0	±2.0	±5.0		
HMGL 1/4	0.25	250	500	A(±100ppm/°C)	100k~10M	100k~10M	100k~10M	100k~10M	+70	-55~+155
				B(±250ppm/°C)	100k~10M	100k~50M	100k~50M	100k~50M		
HMGL 1/2	0.5	500	1000	A(±100ppm/°C)	100k~10M	100k~30M	100k~30M	100k~30M		
				B(±250ppm/°C)	100k~10M	100k~50M	100k~50M	100k~100M		
HMGL 1	1.0	750	1500	A(±100ppm/°C)	100k~10M	100k~50M	100k~50M	100k~100M		
				B(±250ppm/°C)	100k~10M	100k~50M	100k~50M	100k~500M		

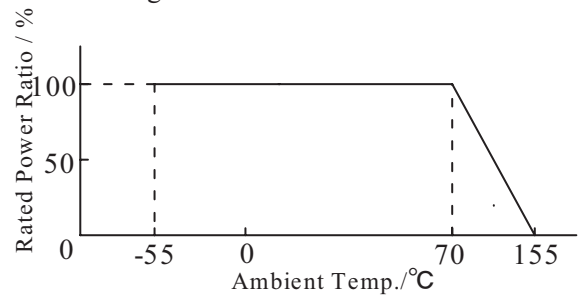
★Rated Voltage:  $\sqrt{P \cdot R}$  (P=Rated power (W), R=Nominal resistance(Ω)) Rated Voltage shall be either the calculated rated voltage or Max. Working Voltage whichever less.

## Dimensions



★Marking: (±2.0),J(±5.0) are 4 color code lines  
 ★Body color: Brown

## Derating Curve



Model No.	Dimensions(mm)			
	L	D	l	d
HMGL 1/4	6.4±0.8	2.3±0.5	27min.	0.6±0.1
HMGL 1/2	9.5±1.0	3.5±1.0	38±3	0.65±0.1
HMGL 1	14.2±1.6	4.8±1.0	38±3	1.0±0.1

## Model Designation

HMGL 1/4 A 10MΩ F TU  
 ① ② ③ ④ ⑤ ⑥

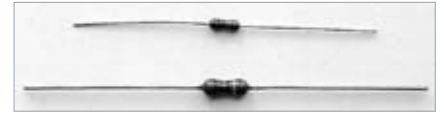
		Symbol	Meaning
①	Model No.	HMGL	PAINT INSULATED FIXED GLAZED METAL FILM RESISTORS
②	Power Rating	1/4	0.25W
		1/2	0.5W
		1	1.0W
③	T.C.R.	A	±100ppm/°C
		B	±250ppm/°C
④	Resistance	10MΩ	Standard Resistance E-24, E-96 Series
		For detail description about resistance marking, please refer to "General Specifications."	
⑤	Tolerance	D	±0.5%
		F	±1.0%
		G	±2.0%
		J	±5.0%
⑥	Forming, Packaging	No Marking	Bulk
		TU,TP	Axial Taping
		RP	Radial Taping
		For detail description about forming and taping specification, please refer to Taping Specification page in "General Specifications."	



# High Voltage Glazed Metal Film Fixed Resistors

## Feature

Model No. "HVL" is suitable for high voltage circuits.



## Power Rating

Model No.	Power Rating	Max. Working Voltage	Resistance Range	Tolerance	T.C.R.	Rating Ambient Temp.	Operating Temp. Range
	[W]	[V]	[Ω]	[%]	[ppm/°C]	[°C]	[°C]
HVL1/4	0.25	D.C.1600 A.C.1150	100k~50M	±1.0 ±2.0	±200	+70	-55~+155
HVL1/2	0.50	D.C.3500 A.C.2500	100k~100M	±5.0			

☆Rated Voltage:  $\sqrt{P \cdot R}$  (P=Rated power (W), R=Nominal resistance(Ω)) Rated Voltage shall be either the calculated rated voltage or Max. Working Voltage whichever less.

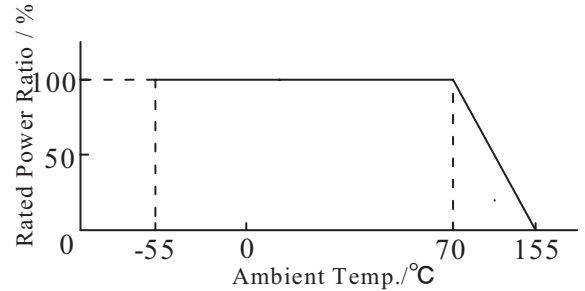
## Dimensions



☆Marking: G(±2.0),J(±5.0) are 4 color code lines

☆Body color: :Brown

## Derating Curve



Model No.	Dimensions(mm)			
	L	D	l	d
HVL1/4	6.4±0.8	2.3±0.5	27min.	0.6±0.1
HVL1/2	9.5±1.0	3.5±1.0	38±3	0.65±0.1

## Model Designation

HVL 1/4 10MΩ F TU  
① ② ③ ④ ⑤

		Symbol	Meaning
①	Model No.	HVL	HIGH VOLTAGE FIXED GLAZED METAL FILM RESISTORS
②	Power Rating	1/4	0.25W
		1/2	0.5W
③	Resistance	10MΩ	Standard Resistance E-24,E-96 Series
		For detail description about resistance marking, please refer to "General Specifications."	
④	Tolerance	F	±1.0%
		G	±2.0%
		J	±5.0%
⑤	Forming, Packaging	No Marking	Bulk
		TU,TP	Axial Taping
		RP	Radial Taping
		For detail description about forming and taping specification, please refer to Taping Specification page in "General Specifications."	