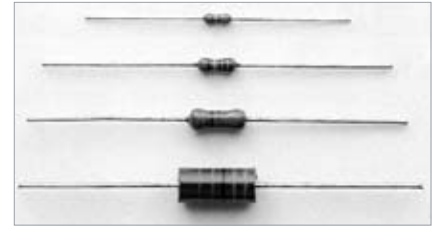




High Stability Insulated Metal Film Fixed Resistors

■ Features

Metal film resistor with high stability and high reliability.
 Available with the tolerance of $\pm 0.5\%$, $\pm 1.0\%$, $\pm 2.0\%$, $\pm 5.0\%$.



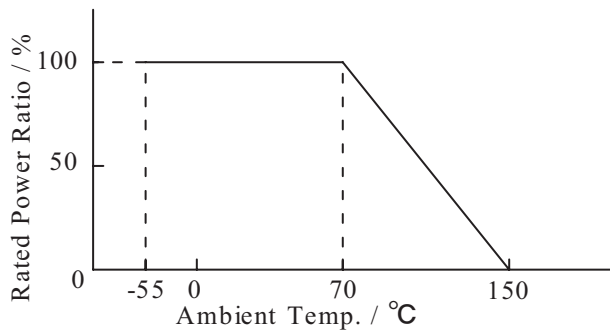
■ Power Rating

Model No.	Power Rating	Max. Working Voltage	Max. Overload Voltage	Resistance Range	Tolerance	T.C.R.	Rated Ambient Temp.	Operating Temp. Range
	[W]	[V]	[V]	[Ω]	[%]	[ppm/ $^{\circ}\text{C}$]	[$^{\circ}\text{C}$]	[$^{\circ}\text{C}$]
RTL1/4	0.25	250	500	10~100k	± 0.5	± 50 ± 100 ± 200	+70	-55~+150
RTL1/2	0.5	350	700	10~100k	± 1.0			
RTL 1	1.0	500	1000	10~100k	± 2.0			
RTL 2	2.0	500	1000	10~100k	± 5.0			

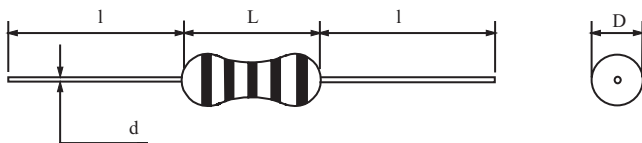
★ Rated Voltage: $\sqrt{P \cdot R}$ (P=Rated power (W), R=Nominal resistance(Ω)) Rated Voltage shall be either the calculated rated voltage or Max. Working Voltage whichever less.

★ D ($\pm 0.5\%$) is available in the range of $100\Omega \sim 100k\Omega$ (All size available)

■ Derating Curve



■ Dimensions



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

★ Body color : Brown

Model No.	Dimensions(mm)			
	L	D	l	d
RTL1/4	6.4 ± 0.8	2.3 ± 0.4	27min.	0.6 ± 0.1
RTL1/2	9.5 ± 1.1	3.5 ± 0.6	38 ± 3	0.65 ± 0.1
RTL 1	14.2 ± 0.8	4.8 ± 0.4	38 ± 3	1.0 ± 0.1
RTL 2	17.5 ± 1.1	8.0 ± 0.5	38 ± 3	1.2 ± 0.1



High Stability Insulated Metal Film Fixed Resistors

Model Designation

$\overline{\text{RTL}}$ $\overline{1/4}$ $\overline{\text{C3}}$ $\overline{1\text{k}\Omega}$ $\overline{\text{F}}$ $\overline{\text{TU}}$
 ① ② ③ ④ ⑤ ⑥

		Symbol	Meaning
①	Model No.	RTL	INSULATED HIGH STABILITY FIXED METAL FILM RESISTORS
②	Power Rating	1/4	0.25W
		1/2	0.5W
		1	1.0W
		2	2.0W
③	T.C.R.	C2	$\pm 50\text{ppm}/^{\circ}\text{C}$
		C3	$\pm 100\text{ppm}/^{\circ}\text{C}$
		C4	$\pm 200\text{ppm}/^{\circ}\text{C}$
④	Resistance	1k Ω	Standard Resistance E-24, E-96 series
		For detail description about resistance marking, please refer to "General Specifications."	
⑤	Tolerance	D	$\pm 0.5\%$
		F	$\pm 1.0\%$
		G	$\pm 2.0\%$
		J	$\pm 5.0\%$
⑥	Forming, Packaging	No Marking	Bulk
		TU,TP	Axial Taping
		For detail description about forming and taping specification, please refer to Taping Specification page in "General Specifications."	

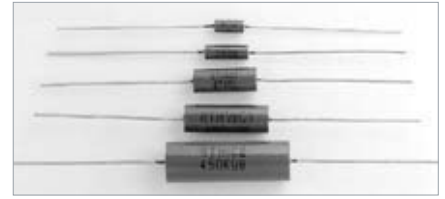


Superior Precision Insulated Metal Film Fixed Resistors

Feature

Model No. "RTH" is equivalent to MIL-R-10509F.

Model No. "RTH" is available up to $\pm 0.05\%$, and also the most suitable for applications of precision electronics equipment.

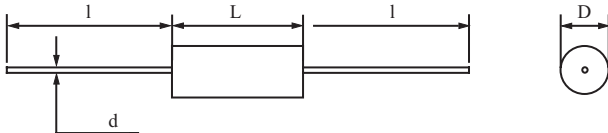


Power Rating

Model No.	Power Rating [W]	Max. Working Voltage [V]	Max. Overload Voltage [V]	T. C. R. [Ω]	Resistance Range (Ω)						Rated Ambient Temp. [°C]	Operating Temp. Range [°C]							
					$\pm 0.05\%$	$\pm 0.1\%$	$\pm 0.25\%$	$\pm 0.5\%$	$\pm 1\%$	$\pm 2, \pm 5\%$									
RTH1/10	0.1	200	400	± 25	50~100k	50~100k	50~100k	50~100k	50~100k	50~150k	50~150k	+125	-55~ +175						
				± 50	—	50~100k	50~100k	50~150k	50~150k	—	—								
				± 100	—	—	50~100k	50~150k	10~400k	10~400k	—			—					
RTH1/8	0.125	250	500	± 25	50~300k	50~300k	30~500k	30~500k	30~500k	—	+125			-55~ +175					
				± 50	—	50~300k	30~500k	20~600k	20~600k	—					—				
				± 100	—	—	30~500k	20~600k	10~600k	10~600k					—	—			
RTH1/4	0.25	300	600	± 25	50~500k	50~1M	30~1M	30~1M	30~1M	—					+125	-55~ +175			
				± 50	—	50~1M	30~1M	20~1.5M	20~1.5M	—							—		
				± 100	—	—	30~1M	20~1.5M	10~2M	10~2M							—	—	
RTH1/2	0.5	500	1000	± 25	50~1M	50~1.5M	30~1.5M	30~1.5M	30~1.5M	—							+125	-55~ +175	
				± 50	—	50~1.5M	30~1.5M	20~1.8M	20~1.8M	—									—
				± 100	—	—	30~1.5M	20~1.8M	10~3M	10~3M									—
RTH 1	1.0	500	1000	± 25	50~1M	50~1.5M	30~1.5M	30~1.5M	30~1.5M	—		+125	-55~ +175						
				± 50	—	50~1.5M	30~1.5M	20~1.8M	20~1.8M	—									—
				± 100	—	—	30~1.5M	20~1.8M	10~3M	10~3M									—

★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

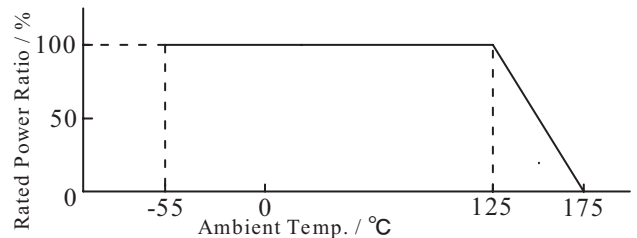


★Body Color : Brown

★Marking : Stamping

Model No.	Dimensions(mm)			
	L	D	l	d
RTH 1/10	6.8 ^{+0.3} _{-1.0}	3.0 ^{+0.5} _{-1.0}	38±3	0.65±0.05
RTH 1/8	9.5±0.5	3.2 ^{+1.0} ₋₀	38±3	0.65±0.05
RTH 1/4	14.5 ^{+0.6} _{-0.5}	4.8 ^{+1.5} ₋₀	38±3	0.65±0.05
RTH 1/2	19.1 ^{+2.4} _{-0.6}	6.4 ^{+1.7} _{-0.2}	38±3	0.8±0.05
RTH 1	19.1 ^{+2.4} _{-0.6}	6.4 ^{+1.7} _{-0.2}	38±3	0.8±0.05

Derating Curve



Model Designation

RTH 1 C3 100Ω A

① ② ③ ④ ⑤

	Symbol	Meaning	
①	Model No.	RTH INSULATED SUPERIOR PRECISION FIXED METAL FILM RESISTORS	
②	Power Rating	1/10 0.10W	
		1/8 0.125W	
		1/4 0.25W	
		1/2 0.5W	
③	T. C. R.	1.0W	
④	C1	± 25ppm/°C	
		C2	± 50ppm/°C
		C3	±100ppm/°C

④	Resistance	100Ω	Standard Resistance
		E-96 Series	
⑤	Tolerance	For detail description about resistance marking, please refer to "General Specifications."	
		A	±0.05%
		B	±0.1%
		C	±0.25%
		D	±0.5%
		F	±1.0%
G	±2.0%		
J	±5.0%		