

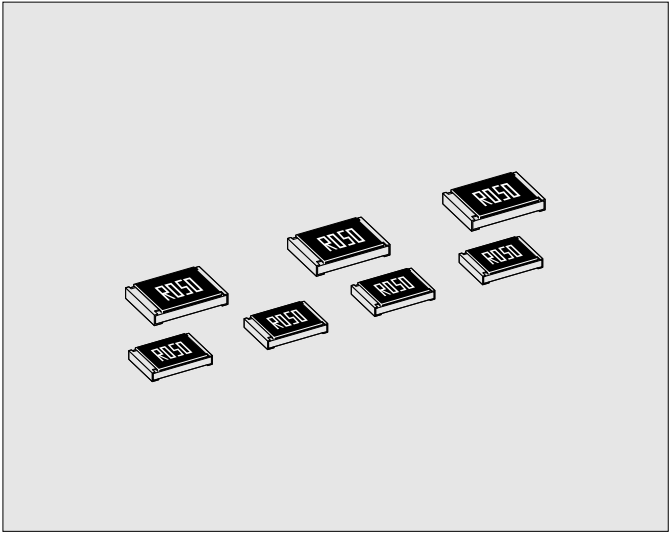
FIXED THICK FILM CHIP RESISTORS; RECTANGULAR TYPE & LOW OHM

KAMAYA OHM

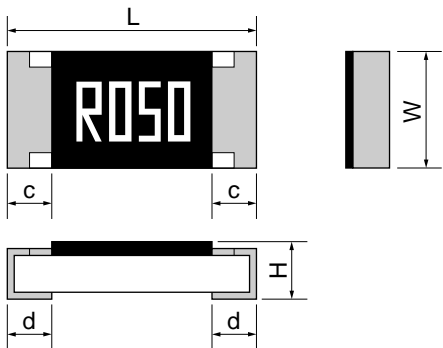
RLS

•Features

1. Suitable for current detection of high-precision circuits  
(power supply, motor, etc.)
2. Stability Class : 5%



•Dimensions



Rated resistance value is marked with 4-digit on the over coating.

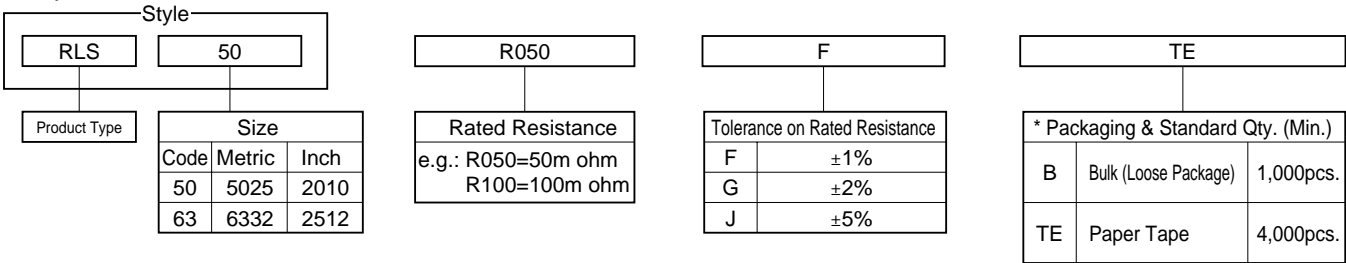
Unit : mm

Style	Metric	Inch	L	W	H	c	d	*Unit weight/pc.
RLS50	5025	2010	5.0±0.2	2.5 ±0.15	0.6±0.15	0.6±0.2	0.6±0.2	25mg
RLS63	6332	2512	6.3±0.2	3.2 ±0.15	0.6±0.15	0.6±0.2	0.6±0.2	40mg

\*Values for reference

•Part Number Description

Example



\*Refer to Tape and Packaging information on pages 46 and 47.

## FIXED THICK FILM CHIP RESISTORS; RECTANGULAR TYPE &amp; LOW OHM

RLS

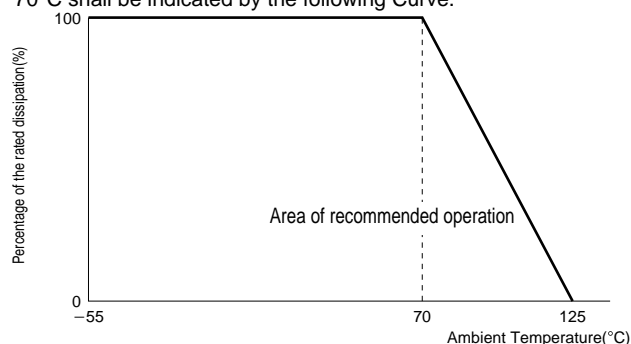
## ●Ratings

Style	Size Metric (Inch)	Rated Dissipation at 70°C W	Rated Current Range A	Combinations of Rated Resistance Range and Temperature Coefficient of Resistance		Tolerance on Rated Resistance	Isolation Voltage V	Category Temperature Range °C
				Rated Resistance Range	Temperature Coefficient of Resistance 10 <sup>-6</sup> /°C			
RLS50	5025 (2010)	0.75	1.93 ~6.12	20mΩ~ 33mΩ	0~ +350	F(±1%) G(±2%) J(±5%)	500	-55~+125
RLS63	6332 (2512)	1.0	2.23~7.07	36mΩ~ 47mΩ	0~ +200			
				50mΩ~200mΩ	0~ +100			

Note1. Rated Current =  $\sqrt{(\text{Rated Dissipation})/(\text{Rated Resistance})}$ Note2. Rated Voltage =  $\sqrt{(\text{Rated Dissipation}) \times (\text{Rated Resistance})}$ . (d.c. or a.c. r.m.s. Voltage)

## ●Derating Curve

The derated values of dissipation for temperatures in excess of 70°C shall be indicated by the following Curve.



## ●Climatic Category

55/125/56

Lower Category Temperature

-55°C

Upper Category Temperature

+125°C

Duration of the Damp heat, Steady-State Test

56 days

## ●Rated Resistance

Resistance	Code	Resistance	Code	Resistance	Code	Resistance	Code	Resistance	Code	Resistance	Code
20mΩ	R020	33mΩ	R033	50mΩ	R050	68mΩ	R068	91mΩ	R091	160mΩ	R160
22mΩ	R022	36mΩ	R036	51mΩ	R051	70mΩ	R070	100mΩ	R100	180mΩ	R180
24mΩ	R024	39mΩ	R039	56mΩ	R056	75mΩ	R075	110mΩ	R110	200mΩ	R200
25mΩ	R025	40mΩ	R040	60mΩ	R060	80mΩ	R080	120mΩ	R120		
27mΩ	R027	43mΩ	R043	62mΩ	R062	82mΩ	R082	130mΩ	R130		
30mΩ	R030	47mΩ	R047	65mΩ	R065	90mΩ	R090	150mΩ	R150		

Note3. Other nominal resistance values are also available, please contact KAMAYA for further information.

## ●Performance Characteristics JIS C 5201-1 : 1998

Description	Requirements	Test Methods
Voltage proof	No breakdown or flashover $R \geq 1G \text{ ohm}$	Clause 4.7 500Va.c., 60s
Variation of resistance with temperature	See Ratings Table	Clause 4.8 Measuring temperature : +20°C/+125°C/+20°C
Overload	$\Delta R \leq \pm 1\%$ No visible damage, legible marking	Clause 4.13 The rated voltage $\times 2.5$ times of Rated Voltage, or equivalent current 2s.
Solderability	In accordance with Clause 4.17.4.5	Clause 4.17 235°C, 2s
Resistance to soldering heat	$\Delta R \leq \pm 1\%$	Clause 4.18 After immersion into the flux, the immersion into solder shall be carried out in Solder bath at 260°C for 5s.
Rapid change of temperature	$\Delta R \leq \pm 1\%$ No visible damage	Clause 4.19 5 cycles between -55°C and +125°C.
Climatic sequence	$\Delta R \leq \pm 5\%$ No visible damage	Clause 4.23 Dry/Damp heat(12+12h cycle), first cycle./ Cold/Damp heat(12+12h cycle), remaining cycle./ D.C.Load.
Damp test, steady state	$\Delta R \leq \pm 5\%$ No visible damage, legible marking	Clause 4.24 40°C, 95%R.H., 56 days, test a) of Clause 4.24.2.1
Endurance at 70°C	$\Delta R \leq \pm 5\%$ No visible damage	Clause 4.25.1 Rated Current, 1.5h "ON", 0.5h "OFF", 70°C, 1,000h.
Endurance at the upper category temperature	$\Delta R \leq \pm 5\%$ No visible damage	Clause 4.25.3 125°C, no-load, 1,000h.
Adhesion	No visible damage	Clause 4.32 5N, 10s
Bend strength of the face plating	$\Delta R \leq \pm 1\%$	Clause 4.33 Amount of bend : 1 mm