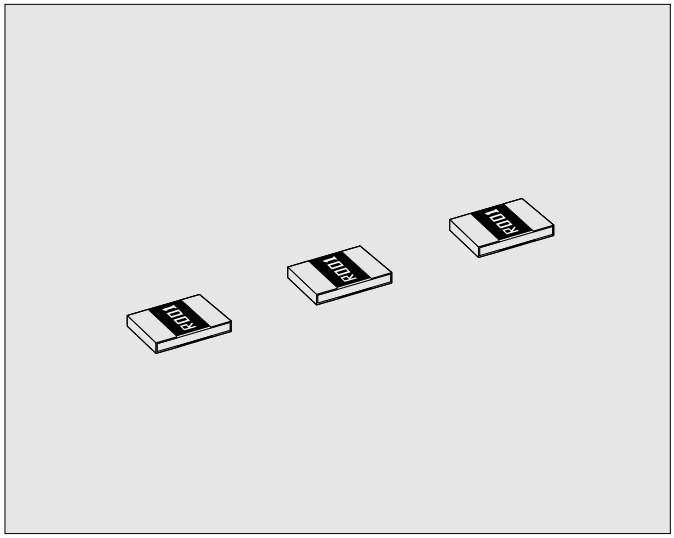
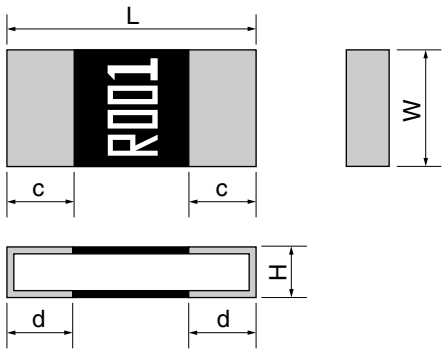
RLP,MLP

●Features

1. New Lineup, 1mΩ, 5mΩ, 10mΩ, 15mΩ.
2. Suitable for current sensing of Battery pack.
3. Stability Class: 5%



●Dimensions



Rated Resistnace marking is 4digit on over coating.

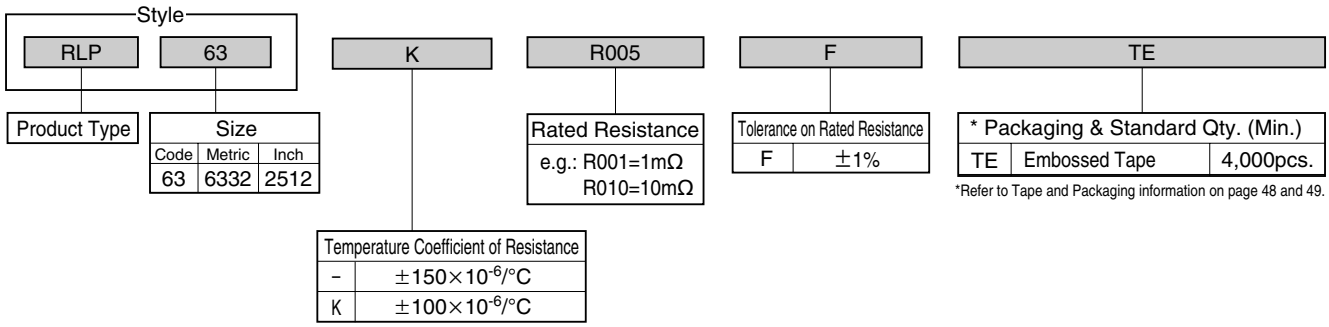
Unit : mm

Style	Metric	Inch	Rated Resistace	L	W	H	c	d	*Unit weight/pc.
RLP63	6332	2512	1mΩ	6.3±0.25	3.2±0.25	0.38±0.15	2.2 ±0.25	2.2 ±0.25	50mg
			5mΩ		3.1±0.25	0.34±0.15	1.95±0.25	1.95±0.25	43mg
			10mΩ			0.23±0.15	1.75±0.25	1.75±0.25	30mg
			15mΩ			0.23±0.15	0.95±0.25	0.95±0.25	26mg
MLP63			5mΩ			0.51±0.15	1.1 ±0.25	1.1 ±0.25	64mg

*Values for reference

●Part Number Description

Example



*Refer to Tape and Packaging information on page 48 and 49.

NEW METAL-PLATE CHIP RESISTORS; LOW OHM RLP

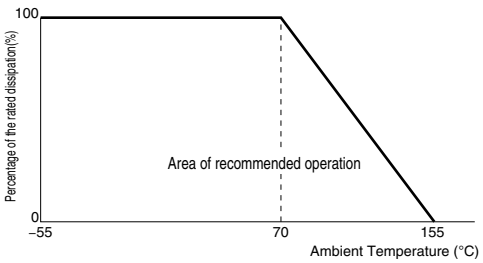
●Ratings

Style	Size Metric (Inch)	Rated Dissipation at 70°C W	Rated Current Range A	Combination of Rated Resistance Range and Temperature Coefficient of Resistance: Rated Resistance Range	Combination of Rated Resistance Range and Temperature Coefficient of Resistance: Temperature Coefficient of Resistance 10^{-6}/°C	Tolerance on Rated Resistance	Isolation Voltage V	Category Temperature Range °C
RLP63	6332 (2512)	2.0	44.7	1mΩ	±150	F(±1%)	100	−55～+155
		1.0	8.16,10,14.1	5mΩ,10mΩ,15mΩ	±100			
MLP63		2.0	20	5mΩ				

Note1. Rated Current = $\sqrt{\text{(Rated Dissipation)/(Rated Resistance)}}$
Note2. Rated Voltage = $\sqrt{\text{(Rated Dissipation)}\times\text{(Rated Resistance)}}$. (d.c. or a.c. r.m.s. Voltage)
Note3. Please contact Kamaya Sales Dept. for any other resistance values.

●Derating Curve

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

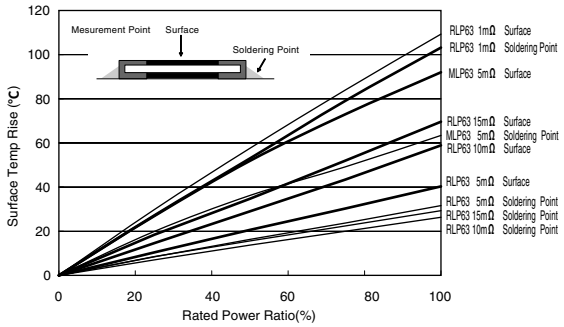


●Climatic Category

55/155/56

Lower Category Temperature	−55°C
Upper Category Temperature	+155°C
Duration of the Damp heat, Steady-State Test	56 days

●Surface Temperature Rise (Reference)

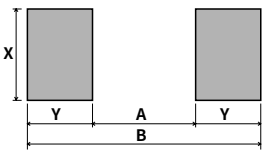


*Because values are different, please contact Kamaya salesdepartment for the details about deployment condition and terms of use.

●Rated Resistance

Style	Resistance	Code
RLP63	1mΩ	R001
RLP63 • MLP63	5mΩ	R005
RLP63	10mΩ	R010
	15mΩ	R015

●Recommended land Pattern



Unit : mm

Style	Metric	Lnch	Rated Resistance	A	B	X	Y
RLP63	6332	2512	1mΩ	2.0	7.6	3.5	2.8
			5mΩ	2.4	7.6	3.5	2.6
			10mΩ	4.0	7.6	3.5	1.8
			15mΩ				
MLP63			5mΩ				

*Values for reference

●Performance Characteristics JIS C 5201-1 : 1998

Description	Requirements	Test Methods
Voltage proof	No breakdown or flashover R≥1G ohm	Clause 4.7 100Va.c.,60s
Variation of resistance with temperature	See Ratings Table	Clause 4.8 Measuring temperature : +20°C/+155°C/+20°C
Overload	ΔR≤±1% No visible damage, legible marking	Clause 4.13 The applied voltage shall be 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	ΔR≤±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	ΔR≤±1% No visible damage	Clause 4.19 5 cycles between −55°C and +155°C.
Climatic sequence	ΔR≤±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	ΔR≤±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	ΔR≤±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	ΔR≤±5% No visible damage	Clause 4.25.3 155°C, no-load, 1,000h.
Adhesion	No visible damage	Clause 4.32 5N, 10s
Bend strength of the face plating	ΔR≤±1%	Clause 4.33 Amount of bend : 1 mm

●Precautions of use

Resistance value will be changed by soldering condition.
Please design products in consideration of this change of resistance value.