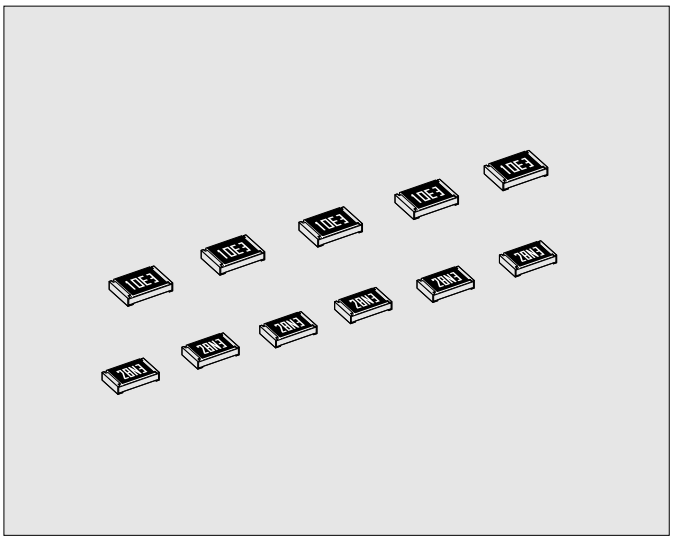
LTC

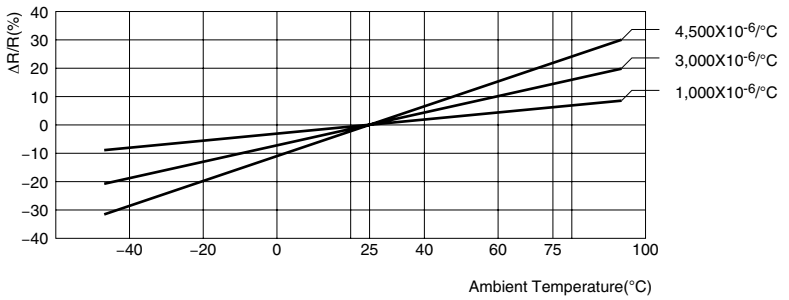
●Features

1. Linearity of resistance change in wide temperature range.
2. Suitable for temperature compensation, temperature sensing and controling, and circuit protection applications.
3. Stability Class : 5%

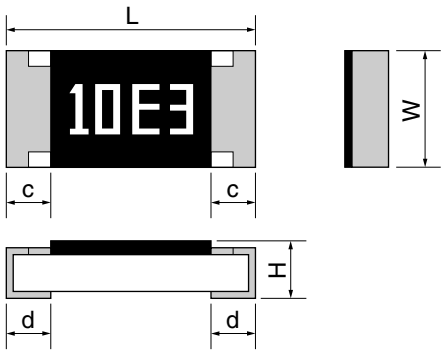


●Termal Characteristics

Temperature Characteristics and Linearity



●Dimensions



Rated resistance and T.C.R. value are marked with 4-digit on the over coating.
e.g. 10E3··· 10 : 1,000×10^{-6}/°C
E3 : 1.5k ohm

Please contact KAMAYA Sales department for further information.

Unit : mm

Style	Metric	Inch	L	W	H	c	d	*Unit weight/pc.
LTC1/10	**2012**	**0805**	2.0±0.15	$1.25^{+0.10}_{-0.05}$	0.6±0.1	0.4 ±0.2	$0.3^{+0.2}_{-0.1}$	5mg
LTC1/8	**3216**	**1206**	3.1±0.1	1.55±0.10	0.6±0.1	0.45±0.20	$0.3^{+0.2}_{-0.1}$	9mg

*Values for reference

●Part Number Description

Example

Style: LTC | 1/8 — Product Type

Rated Dissipation & Size			
Code	Rated Dissipation	Metric	Inch
1/10	0.1W	2012	0805
1/8	0.125W	3216	1206

30 — Temperature Coefficient of Resistance
Refer to Ratings Table on next page
e.g.: 30=3,000×10^{-6}/°C

102 — Rated Resistance
E24 Series
e.g.:102=1k ohm

J — Tolerance on Rated Resistance

J	±5%

B — * Packaging & Standard Qty. (Min.)

B	Bulk (Loose Package)	1,000pcs.
TP	Paper Tape	5,000pcs.

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

●Ratings

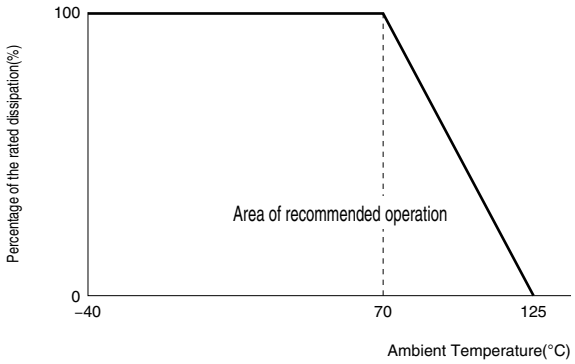
Temperature Coefficient of Resistance 10^{-6}/°C	Code	Resistance Temperature Coefficient Tolerance	Rated Resistance Range (Rated Dissipation at 70°C) LTC1/10 (0.1W)	LTC1/8 (0.125W)	Tolerance on Rated Resistance	Preferred Number Series for Resistors	Isolation Voltage V	Category Temperature Range °C
500	05	±100×10^{-6}/°C	100 ohm~5.1k ohm	100 ohm~ 10k ohm	J(±5%)	E24	100	−40~+125
800	08	±150×10^{-6}/°C	100 ohm~5.1k ohm	100 ohm~ 10k ohm				
1,000	10	±15%	100 ohm~5.1k ohm	100 ohm~ 10k ohm				
1,500	15		100 ohm~3.3k ohm	100 ohm~4.7k ohm				
2,000	20	±10%	100 ohm~3.3k ohm	100 ohm~4.7k ohm				
2,400	24		100 ohm~1.6k ohm	100 ohm~2.2k ohm				
2,800	28		100 ohm~3.3k ohm	100 ohm~3.6k ohm				
3,000	30		100 ohm~3.3k ohm	100 ohm~3.6k ohm				
3,300	33		100 ohm~3.3k ohm	100 ohm~3.6k ohm				
3,600	36		51 ohm~ 910 ohm	51 ohm~1.2k ohm				
3,900	39		51 ohm~ 560 ohm	51 ohm~ 910 ohm				
4,200	42		33 ohm~ 360 ohm	33 ohm~ 470 ohm				
4,500	45		33 ohm~ 200 ohm	33 ohm~ 180 ohm				

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

Note2. Listed above will be made by order. Please contact KAMAYA for further information.

●Derating Curve

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



●Climatic Category

40/125/56

Lower Category Temperature	−40°C
Upper Category Temperature	+125°C
Duration of the Damp heat, Steady-State Test	56 days

●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	Measuring temperature : +25°C/+75°C
Overload	ΔR≤±(1%+0.05 ohm) No visible damage, legible marking	Clause 4.13 The applied voltage shall be 2.5 times severe, 2s.
Solderability	In accordance with Clause 4.17.4.5	Clause 4.17 235°C, 2s
Resistance to soldering heat	ΔR≤±(1%+0.05 omh)	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%+0.05 omh) No visible damage	Clause 4.19 5 cycles between −40°C and +85°C.
Climatic sequence	ΔR≤±(5%+0.1 omh) 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%+0.1 omh) 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%+0.1 omh) No visible damage	Clause 4.25.1 Rated voltage, 1.5h"ON", 0.5h"OFF", 70°C, 1,000h.
Endurance at the upper category temperature	ΔR≤±(5%+0.1 omh) 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	ΔR≤±(1%+0.05 omh)	Clause 4.33 Amount of bend : 3 mm