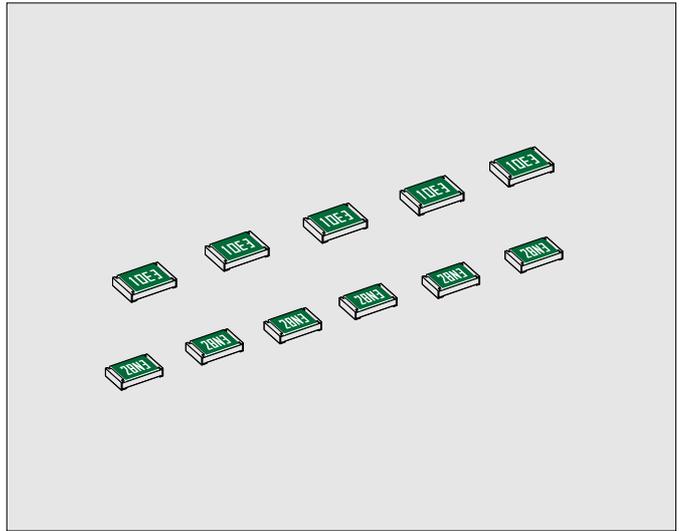


# LTC1/10, 1/8

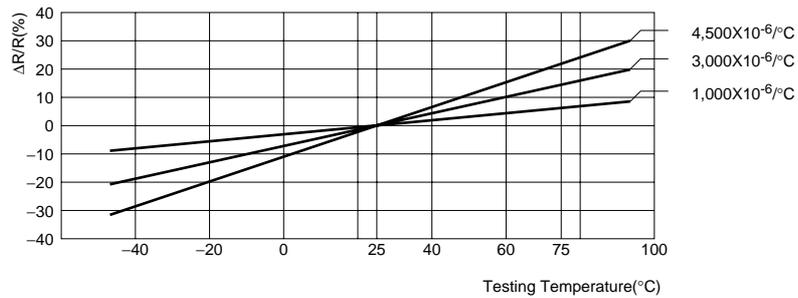
## ●Features

1. Size0805 and 1206 packages available.
2. Nominal resistance and T.C.R. marked on chip surface.
3. Ideally suited for temperature compensation, temperature sensing and control and circuit protection applications.
4. Stability class : 5%

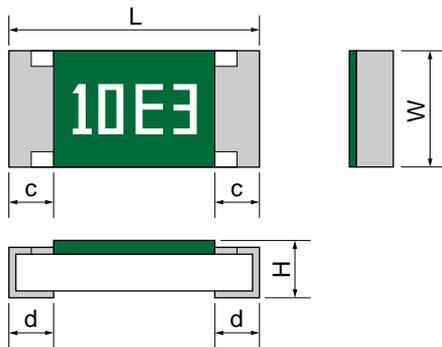


## ●Example of Typical Characteristics

Temperature Characteristics and Linearity



## ●Dimensions



Resistance and T.C.R.value marked on the chip.  
 ex. 10E3... 10 : 1000×10<sup>-6</sup>/°C  
 E3 : 1.5k ohm

Please contact KAMAYA for further information.

Style	Metric	Inch	L	W	H	c	d	*Unit weight/pc.
LTC1/10	2012	0805	2.0±0.15	1.25 <sup>+0.10</sup> <sub>-0.05</sub>	0.6±0.1	0.4 ±0.2	0.3 <sup>+0.2</sup> <sub>-0.1</sub>	5mg
LTC1/8	3216	1206	3.1±0.1	1.55±0.1	0.6±0.1	0.45±0.20	0.3 <sup>+0.2</sup> <sub>-1</sub>	9mg

Unit : mm

\*Values for reference

## ●Product Classification

Example

- LTC                      1/8                      30                      102                      J                      B
- ①Product Type    ②Rated power & Size    ③Temperature Coefficient of Resistance    ④Rated Resistance    ⑤Tolerance on Rated Resistance    ⑥Packaging

①Product Type				③Temperature Coefficient of Resistance				④Rated Resistance		⑤Tolerance on Rated Resistance		*⑥Packaging	
Style				Refer to the rating column e.g. 30 : 3,000×10 <sup>-6</sup> /°C				E24 Series 102=1k ohm		Code    Tolerance on Rated Resistance		Code    Packaging	
②Rated power & Size										J    ±5%		B    Bulk(Loose Packaging)	
Code	Rated power	Size										TP    Paper Tape.	
		Metric	Inch										
1/10	0.10W	2012	0805										
1/8	0.125W	3216	1206										

\*Refer to Taping and Packaging information in page 34.35

LINEAR POSITIVE T-C CHIP THERMISTORS; RECTANGULAR TYPE LTC1/10, 1/8

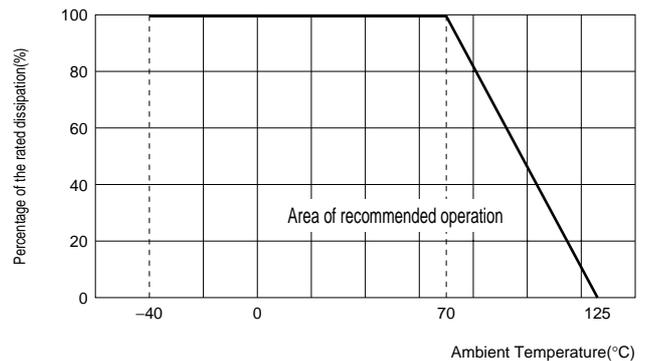
●Ratings

Temperature Coefficient of Resistance 10 <sup>-6</sup> /°C	Code	Resistance Temperature Coefficient Tolerance	Rated Resistance Range (Rated Dissipation at 70°C)		Tolerance on Rated Resistance	Preferred Number Series for Resistors	Isolation Voltage V	Category Temperature Range °C
			LTC1/10(0.1W)	LTC1/8(0.125W)				
500	05	±100×10 <sup>-6</sup> /°C	100 ohm~5.1k ohm	100 ohm~ 10k ohm	J(±5%)	E24Series	100	-40~+125
800	08	±150×10 <sup>-6</sup> /°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	100 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~ 100 ohm	33 ohm~ 180 ohm				

Note.1 listed above will be made by order. Please contact KAMAYA for further information.  
 Note.2 Rated Voltage = √(Rated Power)×(Rated Resistance).(d.c. or a.c. r.m.s. Voltage)

●Derating Curve

The derated values of dissipation at temperature in excess of 70°C shall be as 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 56days

●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 ohm)	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 ohm) No visible damage	Clause 4.19 5 cycles between -40°C and +85°C.
Climatic sequence	ΔR≤±(5%+0.1 ohm) 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 ohm) No visible damage, legible marking	Clause 4.24 40°C 95%R.H. 56 days, test a)
Endurance at 70°C	ΔR≤±(5%+0.1 ohm) No visible damage	Clause 4.25.1 Rated voltage, 1.5h"ON", 0.5h"OFF", 70°C, 1000h.
Endurance at the upper category temperature	ΔR≤±(5%+0.1 ohm) No visible damage	Clause 4.25.3 125°C, no-load, 1000h.
Adhesion	No visible damage	Clause 4.32 5N, 10s
Bend strength of the face plating	ΔR≤±(1%+0.05 ohm)	Clause 4.33 Amount of bend : 3mm