

Type LT73 Series

Key Features

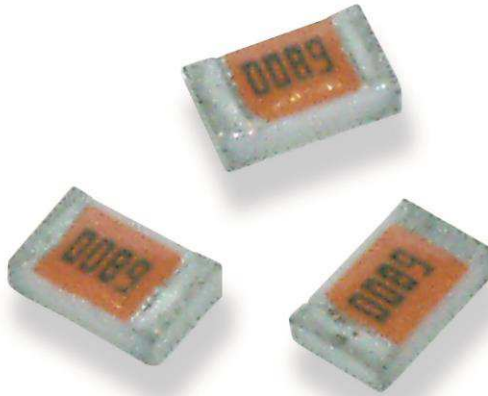
Stable Alumina
Substrate

Solvent
Resistant
Coating

Excellent
Linearity

Supplied on
Tape and Reel

Other TCR's
available to
order



This thin film chip is manufactured by sputtering pure metals onto a high purity alumina base. This process ensures the element remains stable in performance over a long life. The LT73 is equally suited to temperature compensation or thermal protection when incorporated within the appropriate electronics. This range of sensors are finished in a tough epoxy seal and are available on tape for high speed auto placement.

Characteristics – Electrical

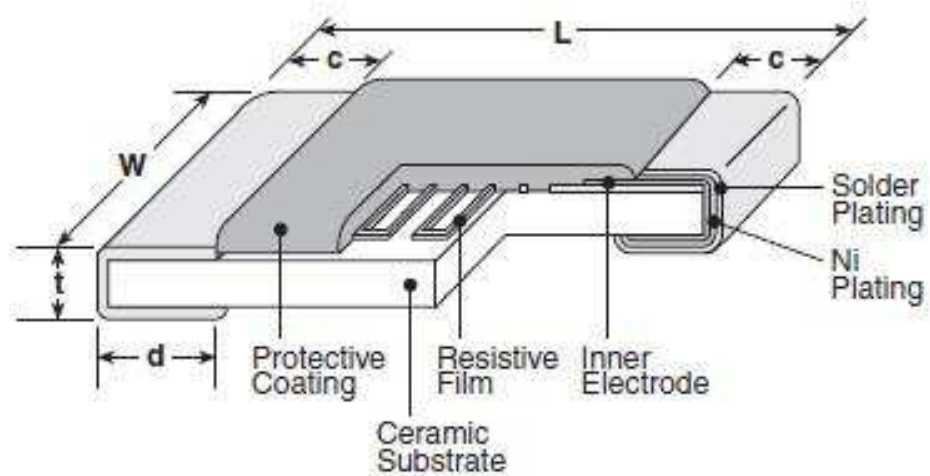
	0805 Size (2A)	1206 size (2B)
Resistance Range	510R - 3K0	510R - 6K2
Resistance Tolerance	±5%	
Rated Power at 70°C	0.1 Watt	0.125 Watt
Max. Working Voltage @ TA 70°C	50 volts	75 volts
Max. Overload Voltage @ TA 70°C	100 volts	150 volts
Operating Temperature Range	-40°C ~ +125°C	
TCR Measuring Temperature	+25°C ~ +75°C (See Graph)	
TCR Tolerance	±10%	
Insulation Resistance	More than 10 Meg	

Marking – Black four digit on bronze body color

Performance Characteristics

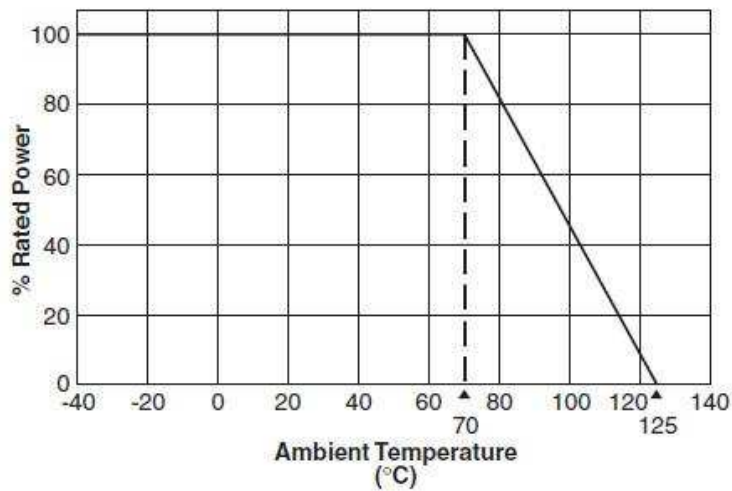
Parameter	Requirement $\Delta R \pm(\% + 0.05\Omega)$		Test Method
	Limit	Typical	
Resistance	Within specified tolerance		25°C
TCR	Within specified tolerance		+25°C/+75°C
Overload (Short time)	±1.0%	±0.23%	Rated voltage x 2.5 or maximum overload volume for 5 seconds, whichever is lower
Resistance to Solder Heat	±1.0%	±0.1%	260°C ± 5°C, 10 seconds ± 1 second
Rapid Change of Temperature	±1.0%	±0.1%	-40°C (30 minutes)/+125°C (30 minutes), 5 cycles
Moisture Resistance	±3.0%	±0.54%	40°C ± 2°C, 90 - 95% RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±3.0%	±0.62%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle

Construction and Dimensions

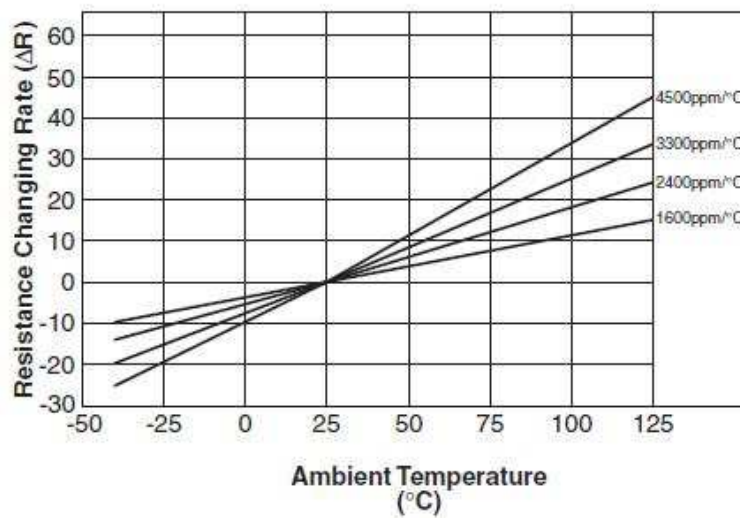


Type	Dimensions (mm)				
	L	W	c	d	t
2A (0805)	2.00±0.20	1.25±0.20	0.40±0.20	0.30 ^{+0.20} / _{-0.10}	0.50±0.10
2B (1206)	3.20±0.20	1.60±0.20	0.50±0.30	0.40 ^{+0.20} / _{-0.10}	0.60±0.10

Derating Curve



Temperature Characteristics

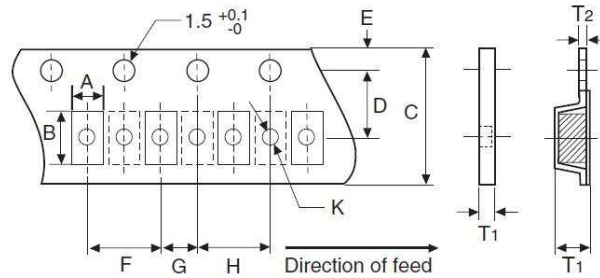


Approximate expression for Resistance-Temperature Characteristics

TCR ($\times 10^{-6}/K$)	C_0	C_1	C_2
3000	0.9288	0.0028	1.9983×10^{-6}
3300	0.9232	0.0030	2.9980×10^{-6}
3600	0.9175	0.0032	4.0000×10^{-6}
3900	0.9099	0.0035	4.0064×10^{-6}
4200	0.9026	0.0038	3.9964×10^{-6}
4500	0.8948	0.0041	4.0064×10^{-6}

Packaging

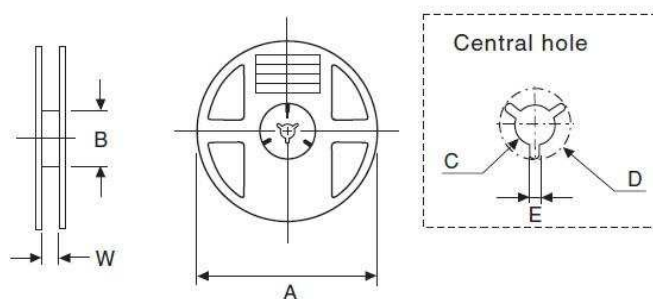
Carrier Tape



Tape	B	C	D	E	F	G	H
2A	2.4±0.1	8.0±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1
2B	3.5±0.1	8.0±0.2	3.5±0.05	1.75±0.1	4.0±0.1	2.0±0.05	4.0±0.1

Tape	A	K	T ₁	T ₂
2A (TE)	1.60±0.15	1.2 Max.	0.75 ^{+0.2} ₋₀	0.25±0.05
2B (TD)	2.0±0.2	---	0.90±0.1	---

Reel



Reel	A	B	W	C	D	E
TE	178±2.0	60±2.0	10±1.2	13±0.5	21±0.8	2.0±0.5
TD	178±2.0	60±2.0	10±1.2	13±0.5	21±0.8	2.0±0.5

How To Order

LT73	3900	2A	1R0	J	TE
Common Part	T.C.R.	Size	Resistance Value	Tolerance	Packaging
LT73	3000ppm/°C 3900ppm/°C	2A 0805 2B 1206	0.1Ω - R10 1Ω - 1R0 1KΩ- 1K0	J - 5%	TE - 4000 RL (0805) TD - 5000 RL (1206)