

Linear Positive Tempco Thermistor Type LT73

ISO 9001:2000
CERTIFIED
TS-16949
CERTIFIED

1. General

- Anti-leaching nickel barrier terminations
- Twenty-five specifiable temperature characteristics
- SMD thin film resistor with thermo-perceptivity
- Marking: black four-digit on bronze body color

2. Dimensions

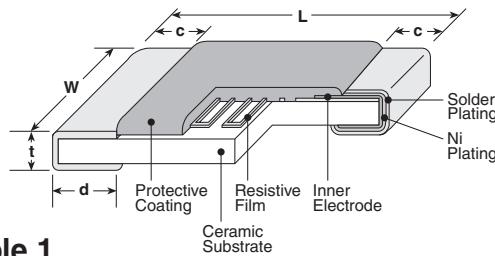


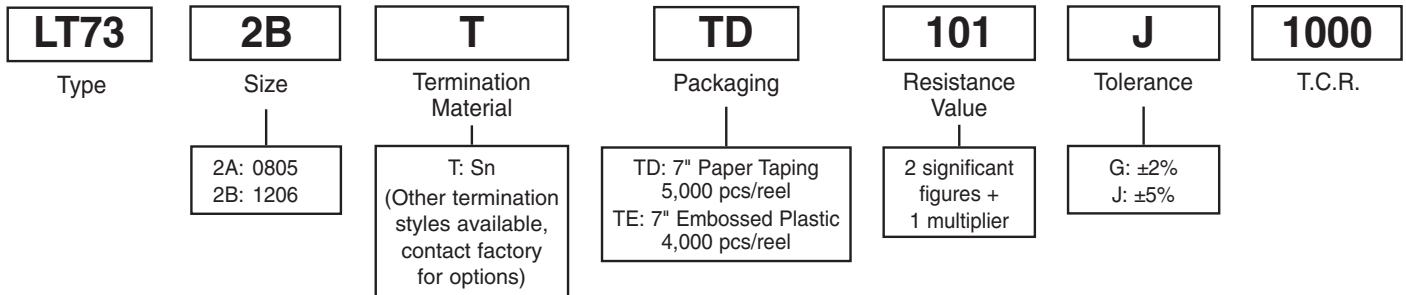
Table 1

Dimensions - inches (mm)					
Part	L	W	c	d	t
2A (0805)	0.079±0.008 (2.00±0.20)	0.049±0.008 (1.25±0.20)	0.016±0.008 (0.40±0.20)	0.012 ^{+0.008} _{-0.004} (0.30 ^{+0.20} _{-0.10})	0.020±0.004 (0.50±0.10)
2B (1206)	0.126±0.008 (3.20±0.20)	0.063±0.008 (1.60±0.20)	0.020±0.012 (0.50±0.30)	0.016 ^{+0.008} _{-0.004} (0.40 ^{+0.20} _{-0.10})	0.024±0.004 (0.60±0.10)

3. Type Designation

The type designation shall be in the following form:

New Type



4. Standard Applications

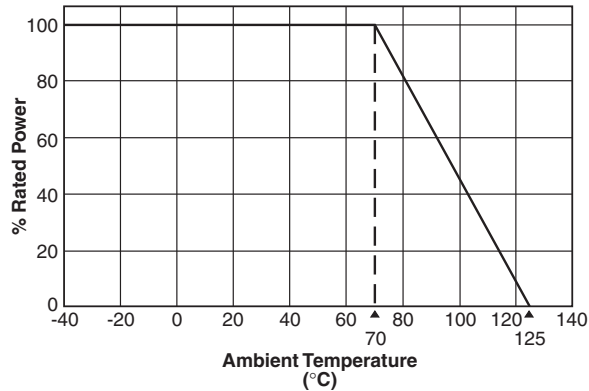
Part Designation	Power Rating @ 70°C	Absolute Maximum Working Voltage	Absolute Maximum Overload Voltage	Operating Temp. Range	Resistance Range E-24*		Resistance Tolerance	T.C.R. (ppm/°C) Maximum**	T.C.R. Tolerance
					LT732A	LT732B			
LT732A	100mW	50V	100V	-40°C to +125°C	2KΩ - 24KΩ	2KΩ - 51KΩ	G: ±2%	150, 250, 350, 450, 500	±100ppm/°C
					1KΩ - 20KΩ	1KΩ - 43KΩ		600, 700, 800, 900	
					1KΩ - 13KΩ	1KΩ - 27KΩ		1000, 1200, 1400	±15%
					510Ω - 4.7KΩ	1KΩ - 10KΩ		1600, 1800	
					510Ω - 4.7KΩ	510Ω - 9.1KΩ		2000, 2200, 2400	
LT732B	125mW	75V	150V	-40°C to +125°C	510Ω - 3.0KΩ	510Ω - 6.2KΩ	J: ±5%	2600, 2800	±10%
					510Ω - 3.0KΩ	510Ω - 6.2KΩ		3000, 3300, 3600	
					510Ω - 3.0KΩ	510Ω - 6.2KΩ		3900	
					100Ω - 1KΩ	100Ω - 2KΩ		4200	
					51Ω - 510Ω	51Ω - 510Ω		4500	

* See Appendix D for available decade values.

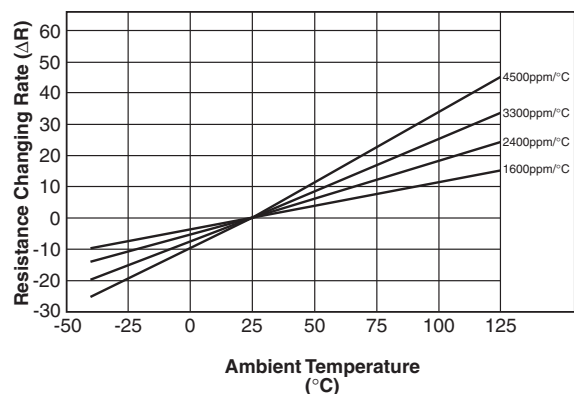
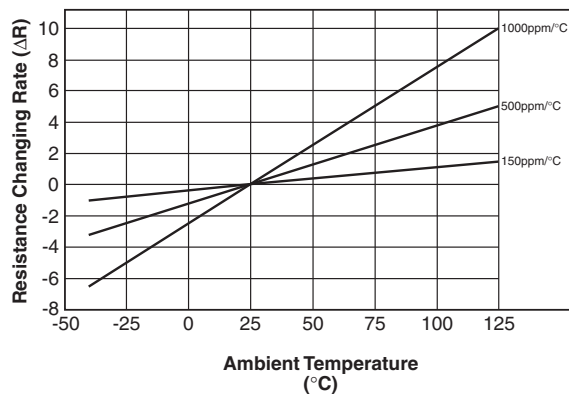
** T.C.R. is factory tested from 25°C to 75°C.

5. Environmental Applications

5.1 Derating Curve



5.2 Temperature Characteristics



6. Approximate Expression for Resistance-Temperature Characteristics

T.C.R. ($\times 10^{-6}/K$)	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}

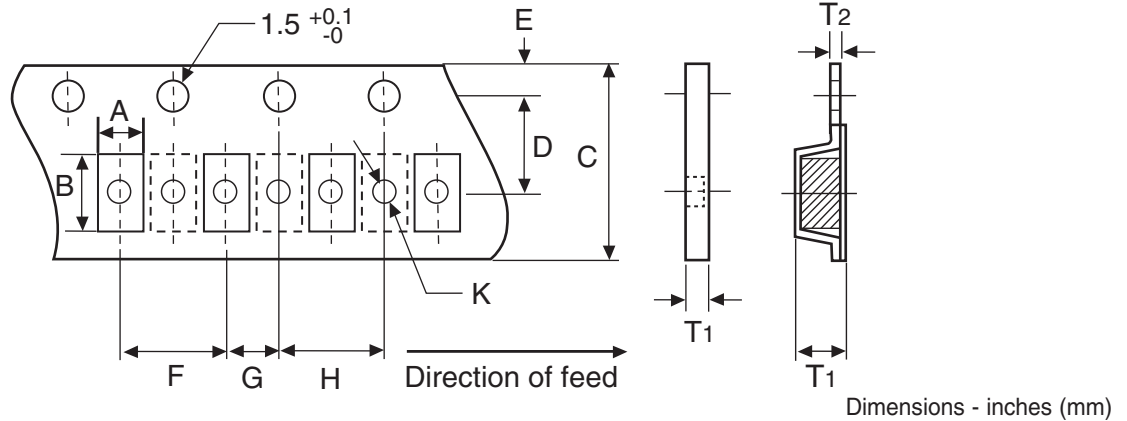
7. Performance Characteristics

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

Confirming resistance drift is recommended since this product has a tendency to have bigger resistance change than general flat chip over 70°C. Please pay attention not to be applied ESD, it may cause of resistance change.

8. Dimensions

8.1 Carrier Tape

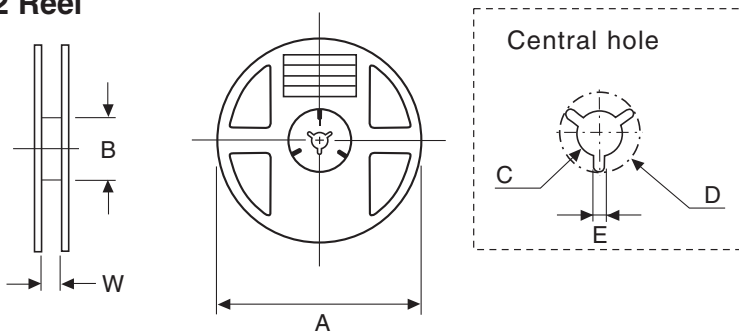


Dimensions - inches (mm)

Tape	B	C	D	E	F	G	H
2A	0.094±0.002 (2.4±0.1)	0.315±0.008 (8.0±0.2)	0.138±0.002 (3.5±0.05)	0.069±0.004 (1.75±0.1)	0.157±0.004 (4.0±0.1)	0.079±0.002 (2.0±0.05)	0.157±0.004 (4.0±0.1)
2B	0.138±0.002 (3.5±0.1)	0.315±0.008 (8.0±0.2)	0.138±0.002 (3.5±0.05)	0.069±0.004 (1.75±0.1)	0.157±0.004 (4.0±0.1)	0.079±0.002 (2.0±0.05)	0.157±0.004 (4.0±0.1)

Tape	A	K	T1	T2
2A (TD)	0.065±0.008 (1.65±0.2)	—	0.030 (0.75 ^{+0.2} ₋₀)	—
2A (TE)	0.063±0.006 (1.60±0.15)	0.047 (1.2 Max.)	0.030 (0.75 ^{+0.2} ₋₀)	0.010±0.002 (0.25±0.05)
2B (TD)	0.079±0.008 (2.0±0.2)	—	0.035±0.004 (0.90±0.1)	—
2B (TE)	0.075±0.008 (1.9±0.2)	0.047 (1.2 Max.)	0.039±0.004 (1.0±0.1)	0.010±0.002 (0.25±0.05)

8.2 Reel



Dimensions - inches (mm)

Tape	A	B	W	C	D	E
TD	7.008±0.079 (178±2.0)	2.362±0.079 (60±2.0)	0.394±0.047 (10.0±1.2)	0.512±0.020 (13±0.5)	0.827±0.031 (21±0.8)	0.079±0.020 (2.0±0.5)
TE	7.008±0.079 (178±2.0)	2.362±0.079 (60±2.0)	0.394±0.047 (10.0±1.2)	0.512±0.020 (13±0.5)	0.827±0.031 (21±0.8)	0.079±0.020 (2.0±0.5)