

# TEMPERATURE SENSITIVE METAL FILM RESISTORS TCR'S FROM +150 TO +7000 PPM

## FEATURES

- Economically priced
- Wide resistance range; 10Ω to 100KΩ
- High stability, excellent linearity
- Standard tolerance: ± 5%, (2% 10% Avail.)
- Marking: Color band or alpha numeric
- Available on Tape & Reel
- Surface-mount version available, refer to MLP series

## STANDARD TEMPERATURE COEFFICIENTS (Shaded items indicate most popular TC's)

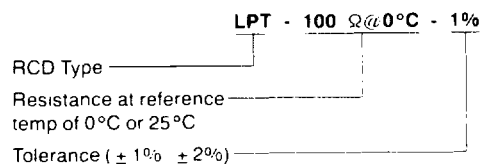
TCR** (ppm/°C)	Color Code	T.C.R. TOLERANCE	STANDARD RESISTANCE RANGE	
			LP12 (1/8W)	LP25(1/4W)
150		±50 ppm/°C	51 Ω ~ 51 KΩ	100 Ω ~ 100 KΩ
250			51 Ω ~ 51 KΩ	100 Ω ~ 100 KΩ
350			51 Ω ~ 51 KΩ	100 Ω ~ 100 KΩ
450			51 Ω ~ 51 KΩ	100 Ω ~ 100 KΩ
550			51 Ω ~ 51 KΩ	100 Ω ~ 100 KΩ
650		±10%	51 Ω ~ 43 KΩ	100 Ω ~ 82 KΩ
750			51 Ω ~ 43 KΩ	100 Ω ~ 82 KΩ
850			51 Ω ~ 43 KΩ	100 Ω ~ 82 KΩ
950			51 Ω ~ 43 KΩ	100 Ω ~ 82 KΩ
1,000			51 Ω ~ 27 KΩ	100 Ω ~ 51 KΩ
1,200			51 Ω ~ 27 KΩ	100 Ω ~ 51 KΩ
1,400			51 Ω ~ 27 KΩ	100 Ω ~ 51 KΩ
1,600			51 Ω ~ 10 KΩ	100 Ω ~ 27 KΩ
1,800			51 Ω ~ 10 KΩ	100 Ω ~ 27 KΩ
2,000			51 Ω ~ 9.1 KΩ	100 Ω ~ 22 KΩ
2,200		51 Ω ~ 9.1 KΩ	100 Ω ~ 22 KΩ	
2,500	Violet	±5%	51 Ω ~ 9.1 KΩ	100 Ω ~ 22 KΩ
3,000	Gray		10 Ω ~ 5.1 KΩ	20 Ω ~ 10 KΩ
3,300	White		10 Ω ~ 5.1 KΩ	20 Ω ~ 10 KΩ
3,600	Black		10 Ω ~ 5.1 KΩ	1.5 Ω ~ 10 KΩ
4,000	Yellow		10 Ω ~ 3.3 KΩ	1.5 Ω ~ 10 KΩ
4,500	Orange		10 Ω ~ 660 Ω	10 Ω ~ 10 KΩ
5,000	Blue		10 Ω ~ 660 Ω	10 Ω ~ 10 KΩ
7,000	*	±10%	10 Ω ~ 10 KΩ	10 Ω ~ 10 KΩ

\* 7000 ppm parts are marked alphanumerically.  
\*\* T.C. measured at 25°C and 65°C

## FEATURES

- Excellent linearity, TC of +3500ppm/°C
- Miniature size provides fast response time (typically 9 sec for 63.2% step change in still air)
- Standard tolerance: ±1%, ±2%, (±0.1%, Avail.)
- Resistance range: 10Ω to 500Ω
- Reference temperature of 0°C or 25°C
- DIN grade platinum (3850 ppm) thin film RTD elements available (See PT Series)

## HOW TO ORDER:

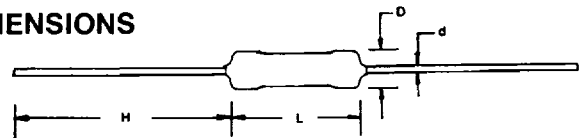


## SERIES LP 155°C RATING

### Linear Positive Temperature Coefficients

The LP series temperature sensitive resistors feature nearly linear positive T.C.'s in a wide range of R/T slopes. The series was developed as a low cost substitute for wirewound sensors when high operating temperatures are not required. Various temperature coefficients are obtained by altering the film composition. Small sizes result in fast response times, typically 6 sec. for LP12 and 9 sec. for LP25 (in "still air").

## DIMENSIONS

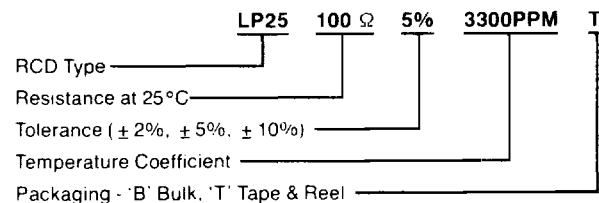


RCD TYPE	L ± .031 [.8]	D ± .02 [.5]	d ± .002 [.05]	H Min.
LP12	.140 [3.56]	.064 [1.6]	.020 [.5]	1.00 [25.4]
LP25	.270 [6.86]	.090 [2.3]	.024 [.6]	1.18 [30]

## PERFORMANCE

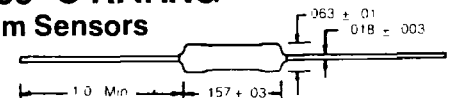
Wattage at 25°C	LP12 1/8W, LP25 1/4W
Operating Temp.	- 55°C to + 155°C
Derating	Derate to zero at 155°C
Thermal diss. constant	LP12 2.8 mW/°C, LP25 5mW/°C
1000 hr. load life	1.0% Max.
1 year shelf life	0.3% Max.
High temp. exposure	± 1% after 1000 hrs. at 125°C

## HOW TO ORDER:



## SERIES LPT 300°C RATING

### Economy Platinum Sensors



## PERFORMANCE

Wattage at 25°C	1/16W
Operating Temp.	- 55°C to + 300°C
Derating	Derate to zero at 300°C
Thermal diss. constant	1.8mW/°C
1000 hr. load life	0.5% Max.
1 year shelf life	0.2% Max.
High temp. exposure	± 0.5% after 1000 hrs. at 150°C
Linearity (0 to 100°C)	± 0.2%
(- 50 to 150°C)	± 0.5%
(- 50 to 300°C)	± 1.5%