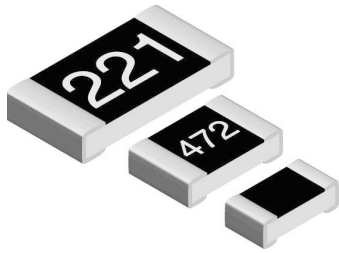




Linear PTC Thermistors, Surface Mount Chip



FEATURES

- Solderable wraparound terminations.
- Alumina substrate base with PTC thick film element.
- 0603, 0805, and 1206 sizes available.
- Available in tape and reel packaging.
- Standard tolerances: $\pm 5\%$, $\pm 10\%$.
- Contact factory for non-standard tolerance.
- Linear from -55°C to $+125^{\circ}\text{C}$.
- Maximum linear deviation: $\pm 0.01\%/^{\circ}\text{C}$.

STANDARD ELECTRICAL SPECIFICATIONS									
TCR LOT PPM - 55°C to + 125°C	TCR* TOLERANCE PPM	R ₂₅ Ω VALUE RANGE (5% and 10% TOLERANCE)**							
		0603		0805		1206			
		MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
3500	± 300	10	- 22	10	- 39	10	- 47		
3300	± 300	27	- 120	47	- 180	56	- 220		
3100	± 300	150	- 270	220	- 330	270	- 470		
2900	± 300	330	- 560	390	- 680	560	- 1K		
2700	± 300	680	- 1.2K	820	- 1.5K	1.2K	- 3.9K		
2500	± 300	1.5K	- 5.6K	1.8K	- 6.8K	4.7K	- 8.2K		
2300	± 300	6.8K	- 10K	8.2K	- 10K	10K	- 15K		

*Contact Vishay Dale if closer TCR lot tolerance is desired.

**Other R₂₅ values and tolerances are available upon request.

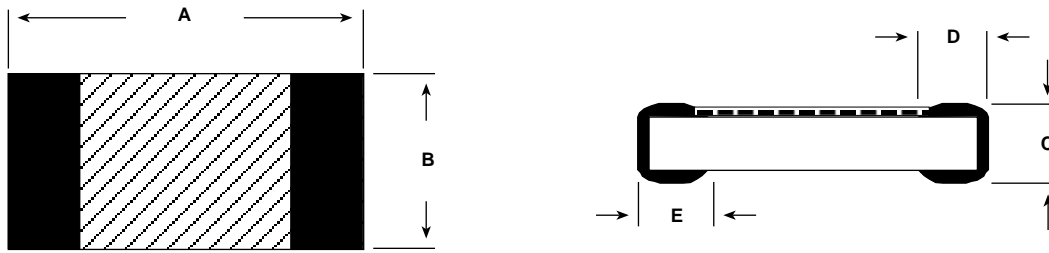
STANDARD RESISTANCE VALUES		
10	120	1.5K
12	150	1.8K
15	180	2.2K
18	220	2.7K
22	270	3.3K
27	330	3.9K
33	390	4.7K
39	470	5.6K
47	560	6.8K
56	680	8.2K
68	820	10K
82	1K	12K
100	1.2K	15K

STANDARD TECHNICAL SPECIFICATIONS		
PART NUMBER	POWER RATING	MAXIMUM WORKING VOLTAGE RCWV ¹
PTFT 0603	75mW	30V DC
PTFT 0805	100mW	40V DC
PTFT 1206	125mW	50V DC

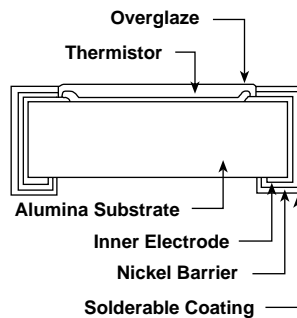
¹Rated Continuous Working Voltage is maximum working voltage or square root of the power rating times resistance value, whichever is less.

ORDERING INFORMATION				
PTFT MODEL	1206 (E.I.A.) DIMENSION	L LINEAR	1002 R ₂₅ First 3 digits are significant figures, 4th digit is the multiplier	K TOLERANCE K = $\pm 10\%$ J = $\pm 5\%$
EXAMPLE: PTFT 1206 L 1002 K				

DIMENSIONS in inches [millimeters]



PART NUMBER	A	B	C	D	E
PTFT0603	0.063 ± 0.006 [1.60 ± 0.15]	0.031 + 0.006 - 0.002 [0.80 + 0.15 - 0.05]	0.020 ± 0.004 [0.50 ± 0.10]	0.012 ± 0.008 [0.30 ± 0.20]	0.012 ± 0.008 [0.30 ± 0.20]
PTFT0805	0.079 ± 0.006 [2.00 ± 0.15]	0.049 ± 0.006 [1.25 ± 0.15]	0.020 ± 0.006 [0.50 ± 0.15]	0.016 ± 0.010 [0.40 ± 0.25]	0.016 ± 0.010 [0.40 ± 0.25]
PTFT1206	0.124 ± 0.006 [3.15 ± 0.15]	0.063 ± 0.006 [1.60 ± 0.15]	0.022 ± 0.006 [0.56 ± 0.15]	0.020 ± 0.010 [0.50 ± 0.25]	0.020 ± 0.010 [0.50 ± 0.25]



CONSTRUCTION

PERFORMANCE*		
TEST***	MAXIMUM %ΔR**	
	1K and Below	Above 1K
High Temperature Exposure (100 hours @ 125°C)	1%	1%
Effects of Bonding (10 sec. Solder dip @ 260°C)	1%	1%
Thermal Shock (30 min. @ - 65°C, 30 min. @ 125°C, 5 cycles)	1%	5%
Low Temperature Operation (Maximum Rated Power for 2 hours @ - 65°C)	1%	10%
Short Time Overload (2.5 x RCWV for 5 seconds)	1%	20%
Moisture Resistance (240 hours, 10 cycles)	4%	5%
Load Life (1000 hours 70°C, Maximum Rated Power 1.5 hours ON, 5 hours OFF)	2%	10%
Load Humidity (1000 hours @ 85°C, 85% RH, and 10% RCWV)	5%	15%
Solderability (95% coverage P/F)	P	P
Leaching (Physical Damage P/F)	P	P

*Environmental performance specifications use test procedures as outlined in MIL-R-23648D and MIL-STD-202.

**PTFT's are ESD Sensitive.

***Test reading accuracy of ± 0.3%.