

## NTC Surface Mount - Thick Film

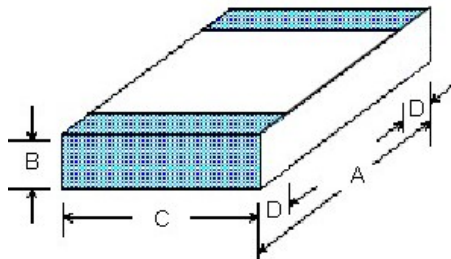
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### Features

- **Nickel Barrier (Tin-Lead wrap around (3-sided) terminations)**
- **Tape & Reeling**
- **0805, and 0603 Sizes**
- **3%, 5% and 10% Tolerances**
- **NTC Thick Film on Alumina Substrate (100% Solid State)**

### Applications

- **Temperature Measurement**
- **Temperature Measurement & Control**
- **Temperature Compensation**



- **Rated Power: 1mW (Max. power under continuous power)**
- **Dissipation Constant: 1.5 mW/°C (Power required to raise part 1 °C)**
- **Thermal Time Constant: <5 Sec. (Time required for a 63.2% change in resistance when temperature is changed)**

## 0603 Size Electrical Specification Table

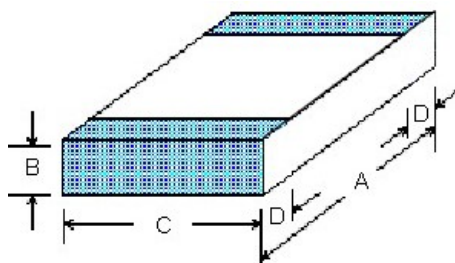
Part Number <small>(Note: Add - 03 for 3% Tol. - 05 for 5% Tol.)</small>	$\Omega$ @ 25°C +/- 10%	BETA 25/85 °C (+/- 3%)	Dimensions in inches (millimeters)			
			A +/- 0.009" (0.23mm)	B +/- 0.006" (0.15mm)	C +/- 0.007" (0.18mm)	D +/- 0.009" (0.23mm)
WSTL06473G	4700	3500	0.060 (1.52)	0.020 (0.51)	0.030 (0.77)	0.012 (0.30)
WSTL06683G	6800	3500	0.060 (1.52)	0.020 (0.51)	0.030 (0.77)	0.012 (0.30)
WSTL06103L	10000	3700	0.060 (1.52)	0.020 (0.51)	0.030 (0.77)	0.012 (0.30)
WSTL06153N	15000	3850	0.060 (1.52)	0.020 (0.51)	0.030 (0.77)	0.012 (0.30)
WSTL06203P	20000	3950	0.060 (1.52)	0.020 (0.51)	0.030 (0.77)	0.012 (0.30)
WSTL06223P	22000	3950	0.060 (1.52)	0.020 (0.51)	0.030 (0.77)	0.012 (0.30)
WSTL06503P	50000	3950	0.060 (1.52)	0.020 (0.51)	0.030 (0.77)	0.012 (0.30)
WSTL06104R	100000	4100	0.060 (1.52)	0.020 (0.51)	0.030 (0.77)	0.012 (0.30)
WSTL06154R	150000	4100	0.060 (1.52)	0.020 (0.51)	0.030 (0.77)	0.012 (0.30)

### Example of Option Request:

To Add Tape And Reeling: Add **-TR** to Part Number (Ex: WSTL06154-**TR**)

To Add 5% Tolerance: Add **-05** to Part Number (Ex: WSTL06154-**05**)

To Add both Tape and Reeling and 5% Tolerance: (Ex: WSTL06154-**05TR**)



- **Rated Power: 1mW (Max. power under continuous power)**
- **Dissipation Constant: 1.5 mW/°C (Power required to raise part 1 °C)**
- **Thermal Time Constant: <5 Sec. (Time required for a 63.2% change in resistance when temperature is changed)**

### 0805 Size Electrical Specification Table

Part Number <small>(Note: Add - 03 for 3% Tol. - 05 for 5% Tol.)</small>	$\Omega$ @ 25°C +/- 10%	BETA 25/85°C (+/- 3%)	Dimensions in inches (millimeters)			
			A +/- 0.009" (0.23mm)	B +/- 0.006" (0.15mm)	C +/- 0.009" (0.23mm)	D +/- 0.009" (0.23mm)
WSTL08202G	2000	3500	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08302G	3000	3500	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08502J	5000	3450	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08103J	10000	3450	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08103L	10000	3700	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08103R	10000	4100	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08153R	15000	4100	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08203G	20000	3500	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08203R	20000	4100	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08303P	30000	3950	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08303R	30000	4100	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08503P	50000	3950	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.012 (0.30)
WSTL08104P	100000	3950	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.016 (0.41)
WSTL08154R	150000	4100	0.080 (2.03)	0.020 (0.51)	0.050 (1.27)	0.016 (0.41)

### Example of Option Request:

To Add Tape And Reeling: Add **-TR** to Part Number (Ex: WSTL08154-**TR**)

To Add 5% Tolerance: Add **-05** to Part Number (Ex: WSTL08154-**05**)

To Add both Tape and Reeling and 5% Tolerance: (Ex: WSTL08154-**05TR**)

### Terminology

**Base Resistance** - The resistance value of a thermistor at a specified temperature with negligible electrical power to avoid self heating. Usually base resistance will be defined at 25 C.

**BETA** - BETA(25°C/85°C) is a "material constant" that defines the Resis.- Temperature curve slope. It is calculated using the following equation:  $[(\ln R_{25} - \ln R_{85}) / (1/T_{25} - 1/T_{85})]$  Note: Absolute Temperature in degrees Kelvin (°K) must be used (°C + 273.15) in the calculation.