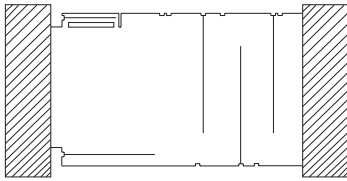


## Trimmable Thin Film Chip Resistors

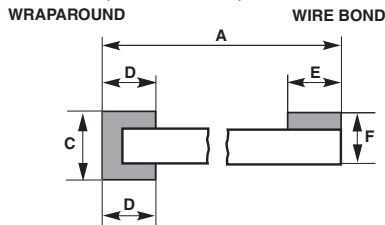


For applications requiring functional trimming of high stability, low noise, low voltage coefficient resistors. These trimmable thin film chip resistors will meet your exact requirements. They are provided on alumina substrates with aluminum wire bond pads or wraparound terminals.

### FEATURES

- The proven outstanding performances of the P.NE chip resistors
- Final resistor tolerance to 0.01% (depending on end user trim capability)

### DIMENSIONS in inches (millimeters)



CASE SIZES max. tol. min. tol	WRAPAROUND				WIRE BOND				POWER RATING AT + 70°C (mW)	LIMITING ELEMENT VOLTAGE V
	A	B	C	D	A	B	E	F		
	+ (0.64) 0.025 - (0.13) - 0.005	+ (0.26) 0.010 - (0.13) - 0.005	+ (0.64) 0.024 - (0.13) - 0.005	+ (0.13) 0.005 - (0.13) - 0.005	MIN. MAX.	MIN. MAX.	MIN. MAX.			
0603	(1.52) 0.06	(0.75) 0.03	(0.38) 0.015	(0.38) 0.015	(1.9) 0.075 (2.1) 0.083	(0.8) 0.031 (1) 0.039	(0.3) 0.012 (0.4) 0.016	(0.4) 0.016	125	50
0705 0805	(1.91) 0.075	(1.27) 0.050	(0.38) 0.015	(0.38) 0.015	(2.15) 0.085 (2.35) 0.092	(1.15) 0.045 (1.35) 0.053	(0.3) 0.012 (0.4) 0.016	(0.4) 0.016	200	50
1206	(3) 0.126	(1.60) 0.063	(0.38) 0.015	(0.38) 0.015	(3.2) 0.126 (3.4) 0.134	(1.6) 0.063 (1.8) 0.071	(0.3) 0.012 (0.4) 0.016	(0.4) 0.016	250	75
2010	(5.08) 0.200	(2.54) 0.100	(0.38) 0.015	(0.38) 0.015	(5.3) 0.209 (5.5) 0.216	(2.6) 0.102 (2.8) 0.110	(0.3) 0.012 (0.4) 0.016	(0.4) 0.016	1000	100

### ORDERING INFORMATION

PTrim	AA	0603	1	E	B	W
SERIES	MASK CODE	CASE STYLE	RESISTIVITY CODE	T.C.R.	TERMINATION	PACKAGING
		0603	1: 10Ω/sq	E: ± 25ppm/°C	B: tinned over nickel barrier	B: Bulk
		0705/0805	2: 25Ω/sq	Y: ± 10ppm/°C	G: gold over nickel barrier	W: Waffle-pack
		1206	3: 50Ω/sq		A: aluminium (top side only)	R: tape and reel
		2010	4: 100Ω/sq			
			5: 150Ω/sq			

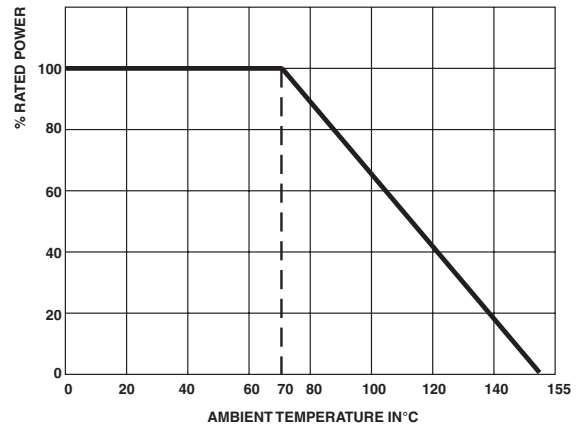


**ELECTRICAL SPECIFICATIONS**

**Resistance Range:** See Resistance Range table  
**Resistance Tolerance:** End user capability  
**Power Dissipation:** 125mW to 1W at + 70°C  
**Temperature Coefficient:** ± 25ppm/°C code E  
 ± 10ppm/°C code Y

**MECHANICAL SPECIFICATIONS**

**Substrate:** Alumina  
**Technology:** Thin Film  
**Film:** Nickel Chromium with mineral passivation  
**Terminations:** **B type** : pre-tinned over nickel barrier for other applications  
**G type** : gold over nickel barrier  
**A type** : aluminium for wire bonding



**POWER DERATING CURVE**

**PACKAGING**

Several types of packaging are proposed: tube, waffle-pack and tape and reel.

SIZE	NUMBER OF PIECES PER PACKAGE			TAPE WIDTH
	TUBE	WAFFLE PACK 2" X 2"	TAPE AND REEL MIN. MAX.	
0603	500	100	500 4000	8mm
0805 0705				
1206	250	100		
2010	100			12mm*

**CLIMATIC SPECIFICATIONS**

**Operating Temperature Range:** - 55°C to + 155°C

RESISTANCE RANGE								
CASE STYLE	MASK CODE	SQUARE COUNT	TRIM. FACTOR	RESISTIVITY (CODE)				
				10Ω/sq (1)	25Ω/sq (2)	50Ω/sq (3)	100Ω/sq (4)	150Ω/sq (5)
0603	AA	1.52sq 15.2sq	10	15.2 152	38 380	76 760	152 1520	228 2280
	AB	28sq 134sq	4,7	280 1340	700 3350	1400 6700	2800 13400	4200 20100
	AC	483sq 1555sq	3,2	4830 15550	12075 38875	24150 77750	48300 155500	72450 233250
0705 0805	AD	1.2sq 12sq	10	12 120	30 300	60 600	120 1200	180 1800
	AE	24sq 110sq	4,5	240 1100	600 2750	1200 5500	2400 11000	3600 16500
	AF	577sq 2332sq	4	5770 23320	14425 58300	28850 116600	57700 233200	86550 389800
1206	AG	1.636sq 16sq	10	16.36 160	40.9 400	81.8 800	163.6 1600	246.4 2400
	AH	31sq 187sq	6	310 1870	775 4675	1550 9350	3100 18700	4650 28050
	AI	481sq 2145sq	4,4	4810 21450	12025 53625	24050 107250	48100 214500	72150 321750
	AJ	2390sq 10387sq	4,3	23900 103870	59700 259675	119500 519350	239000 1038700	358500 1558050
2010	AK	1.63sq 16sq	10	16.3 160	40.75 400	81.5 800	163 1600	244.5 2400
	AL	3676sq 30816sq	8,3	36760 308160	91900 770400	183800 154800	367600 3081600	551400 4622400

# PTrim 0603 to 2010

Vishay Sfernice

Trimmable Thin Film Chip Resistors



<b>PERFORMANCE</b>			
<b>TESTS</b>	<b>CONDITIONS</b>	<b>VALUES AND DRIFTS</b>	
		<b>MIL-R-55342 F REQUIREMENTS</b>	<b>TYPICAL PERFORMANCES</b>
Thermal Shock	MIL - R - 55342 F MIL-Std-202 F-Method 107 F	± 0.05%	± 0.02%
Short Time Overload	MIL - R - 55342 F Para 3.10.4.7.5	± 0.05%	± 0.01%
Low Temperature Operation	MIL - R - 55342 F Para 3.9 & 4.7.4	± 0.05%	± 0.01%
Resistance to Solder Heat	MIL - R - 55342 F Para 3.12, 4.7.7, 4.7.1.2	± 0.05%	± 0.03%
Moisture Resistance	MIL - R - 55342 F Para 3.13 & 4.7.8 MIL-Std-202 F-Method 106 E	± 0.10%	± 0.01%
High Temperature	MIL - R - 55342 F Para 3.11 & 4.7.6	± 0.05%	± 0.05%
Load Life	MIL - R - 55342 F 2000 hours Pn at 70°C MIL-Std-202 F-Method 108 A	± 0.5%	± 0.10%