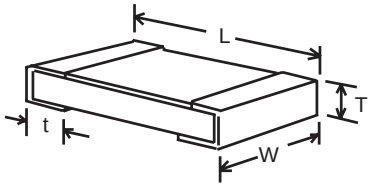
ULTRA PRECISION CHIP RESISTORS

BLU SERIES

RoHS Term.W is RoHS compliant & 260°C compatible



- ❒ Industry's widest range of precision chip resistors!
- ❒ Tolerance to ±0.01%, TCR to 5 ppm/°C

CUSTOM OPTIONS

- ❒ Option P: Pulse resistant design
- ❒ Option ER: Burn-In for Hi-Rel applications
- ❒ Option V: +200° operating temperature
- ❒ Option A: Marking of resis. code in 3 or 4 digits (not available on BLU0201 or BLU0402)
- ❒ Matched sets and TC's to 2ppm available (limited range)

'Blu-Chip' performance at an economical price!

RCD's expertise in the field of ultra-precision resistors since 1973, combined with the latest in automated chip resistor production equipment, enables precision chip resistors at prices comparable to lower grade devices. The BLU-chip design features excellent stability levels. Intermediate and extended-range values are available on custom basis. Popular values are available from stock.

RCD Type	Power @ 70°C	Max. Working Voltage*	TCR (PPM/°C)	Standard Resistance Range[1]				Dimensions			
				0.01%	.02%, .05%	0.1%,0.25%	0.5%, 1%	L	W	T	t
BLU0201	.05W	15V	10, 15	N/A	N/A	100Ω - 10K	100Ω - 10K	.020±.004 [.5 ± .1]	.01±.002 [.25 ±.05]	.014±.004 [.35 ±.1]	01±.005 [.25 ±.12]
			25,50	N/A	N/A	100Ω - 10K	33Ω - 22K				
			100	N/A	N/A	100Ω - 10K	10Ω - 22K				
BLU0402	.062W	25V	5	50Ω -2K	50Ω -2K	51Ω -2K	50Ω -2K	.040±.004 [1.0 ± .1]	.020±.002 [.5 ± .05]	.014±.004 [.35 ±. 1]	.01±.005 [.25 ±.12]
			10, 15	50Ω -12K	50Ω -12K	51Ω -12K	25Ω -12K				
			25	50Ω -12K	50Ω -12K	10Ω - 100K	10Ω - 100K				
			50,100	50Ω -12K	50Ω -12K	10Ω - 100K	10Ω - 1M				
BLU0603	.1W	75V	5	50Ω -8K	50Ω -8K	50Ω -8K	50Ω -8K	.063±.008 [1.6 ± .2]	.031±.006 [.8 ± .15]	.018±.006 [.45 ±. 15]	.012±.008 [.3 ± .2]
			10, 15	25Ω -100K	25Ω -100K	10Ω -402K	25Ω -100K				
			25	25Ω -100K	4.7Ω -150K	4.7Ω -402K	2Ω -402K				
			50,100	25Ω -100K	4.7Ω -150K	4.7Ω -402K	2Ω - 1M				
BLU0805	.125W	100V	5	50Ω -16K	50Ω -16K	50Ω -16K	50Ω -16K	.079±.006 [2.0±.15]	.050±.006 [1.25±.15]	.018±.006 [.45 ± .15]	.014±.008 [.35 ±. 2]
			10, 15	25Ω -200K	25Ω -200K	10Ω -499K	25Ω -200K				
			25,50,100	25Ω -200K	4.7Ω -500K	4.7Ω - 1M	1Ω - 1M				
BLU1206	.25W	150V	5	50Ω -30K	50Ω -30K	50Ω -30K	50Ω -30K	.126±.006 [3.2 ± .15]	.063±.006 [1.6 ± .15]	.020±.006 [.50 ± .15]	.020±.010 [.51 ± .25]
			10, 15	25Ω -500K	25Ω -500K	10Ω -1M	25Ω -500K				
			25,50,100	25Ω -500K	4.7Ω - 1M	4.7Ω - 1M	1Ω - 2M				
BLU1210	.33W	150V	5, 10	100Ω -30K	100Ω -330K	100Ω -330K	100Ω -330K	.126±.006 [3.2 ±.15]	.098±.008 [2.5 ± .2]	.024±.008 [.61 ±. 2]	.020±.010 [.51 ± .25]
			25	51Ω -500K	51Ω - 2M	51Ω - 2M	51Ω - 2M				
			50,100	51Ω -500K	51Ω - 2M	51Ω - 2M	10Ω - 4.7M				
BLU2010	.5W	150V	5	50Ω -30K	50Ω -30K	50Ω -30K	50Ω -30K	.197±.008 [5 ±. 2]	.098±.008 [2.5 ±. 2]	.024±.008 [.61 ± .2]	.024±.008 [.61 ± .2]
			10, 15	25Ω -500K	25Ω -500K	10Ω -1M	25Ω -500K				
			25,50,100	25Ω -500K	4.7Ω - 1M	4.7Ω - 1M	1Ω - 2M				
BLU2512	1W	200V	5	50Ω -50K	50Ω -50K	50Ω -50K	50Ω -50K	.248±.008 [6.3 ± .2]	.126±.008 [3.2 ± .2]	.024±.008 [.61 ± .2]	.024±.008 [.61 ± .2]
			10, 15	25Ω -500K	25Ω -500K	10Ω -1M	25Ω -500K				
			25,50,100	25Ω -500K	4.7Ω - 1M	4.7Ω - 1M	1Ω - 2M				

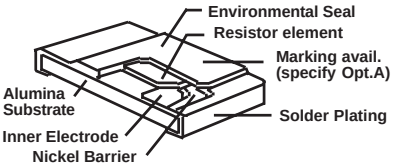
*Maximum working voltage determined by $E=\sqrt{PR}$, E should not exceed value listed. Increased voltage ratings available. [1] Extended range available, consult factory.

TYPICAL PERFORMANCE CHARACTERISTICS

Requirements	Characteristics (5-25ppm)*	Test Method
Short Time Overload, 5 Sec.	±0.1% ΔR	Rated W x 2.5, nte 2x Max..Voltage
Resistance to Solder Heat	± 0.05% ΔR	260 ± 5°C, 3 seconds
High Temperature Exposure	± 0.1% ΔR	100 hours @ +125°C
Thermal Shock	± 0.1% ΔR	-55°C to +125°C, 0.5 hrs, 5 cycles
Moisture Resistance	± 0.2% ΔR	Mil-STD-202 M103 95% RH 1000hrs
Load Life (1000 hours)	± 0.1% (± .25% 10,000 hrs)	Rated W, Mil-PRF-55342 4.8.11.1
Solderability	95% (Min.)	MIL-Std-202, Method 208
Shelf Life	100 ppm/year (Max.)	Room Temp. & Humidity, No-Load
Dielectric Withstand Voltage	250V (100V 0402 & 0603)	60 Seconds, terminal to ceramic

* The typical ΔR of chips with 50-100ppm TC is double that of chips with 5 to 25ppm TC

CONSTRUCTION



To ensure utmost reliability, care should be taken to avoid potential sources of ionic contamination.

P/N DESIGNATION: BLU1206 ☐ - 1002 - B T 25 W

RCD Type

Options: P, ER, A (leave blank if standard)

4-Digit Resistance Code: 3 signif. digits & multiplier (10R0=10Ω, 1000=100Ω, 1001=1KΩ)

Tolerance Code: F=1%, D=0.5%, C=0.25%, B=0.1%, A=0.05% Q=0.02%, T=0.01%

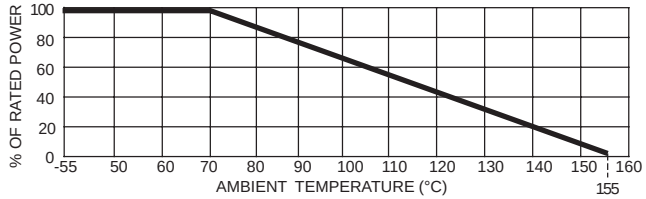
Packaging: B = Bulk, T = Tape & Reel

TC: 5=5ppm, 10=10ppm, 15=15ppm, 25=25ppm, 50=50ppm, 101=100ppm

Termination: W= Lead-free, Q= Tin/Lead (leave blank if either is acceptable)

DERATING CURVE

Resistors may be operated up to full rated power with consideration of mounting density, pad geometry, PCB material, and ambient temperature.



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