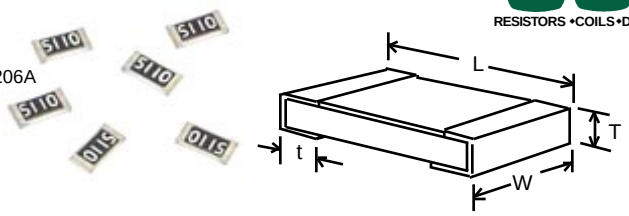
ULTRA PRECISION THIN FILM CHIP RESISTORS

BLU SERIES

RESISTORS •COILS•DELAY LINES

Type BLU1206A



FEATURES

- ❒ Industry's widest range of precision chip resistors!
- ❒ Tolerance to ±0.01%, TCR to 5 ppm/°C
- ❒ Wattage rating up to 1/2W
- ❒ Unlimited selection of resistance values
- ❒ Low cost

CUSTOM OPTIONS

- ❒ Option 'P': Pulse resistant design
- ❒ Option 'M': Matched sets
- ❒ Option 'ER': Burn-In for Hi-Rel applications
- ❒ Option 'B': Increased power rating
- ❒ Option 'A': Marking of resis. code (3 or 4 digits), not available on BLU-0201 or BLU-0402

"BLU-CHIP" Series offers unparalleled performance!
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 unsurpassed stability levels, extremely low noise and voltage coefficient, as well as low inductance and capacitance. Consult factory for availability of non-standard values. EIA E-96 and E-24 values are standard in most sizes.

RCD Type	Wattage		Max. Working Voltage*	Max. Overload Voltage[1]	TCR (PPM/°C)	Standard Resistance Range[1]			Dimensions			
	Std	Opt.B				.01%-.05%	.1%-0.25%	0.5%-1%	L	W	T	t
BLU0201	.025W	.0375W	15V	30V	25,50	N/A	N/A	33Ω - 22K	.020±.004 [.5±.1]	.01±.002 [.25±.05]	.014±.004 [.35±.1]	01±.005 [.25±.12]
					100	N/A	100Ω - 10K	10Ω - 22K				
BLU0402	.05W	..075W	25V*	50V	25	N/A	100Ω - 10K	100Ω - 10K	.040±.004 [1.0±.1]	.020±.002 [.5±.05]	.014±.004 [.35±.1]	.01±.005 [.25±.12]
					50,100	N/A	10Ω - 100K	10Ω - 100K				
BLU0603	.062W	.093W	50V*	100V	25,50	100Ω -10K	100Ω - 33K	100Ω - 100K	..063±.008 [1.6±.2]	.031±.006 [.8±.15]	.018±.006 [.45±.15]	.012±.008 [.3±.2]
					100	100Ω -10K	10Ω - 33K	10Ω - 330K				
BLU0805	.10W	.125W	100V*	200V	5, 10	100Ω -100K	100Ω - 100K	100Ω - 100K	.079±.006 [2.0±.15]	.050±.006 [1.25±.15]	.018±.006 [.45±.15]	.014±.008 [.30±.2]
					25,50,100	100Ω -100K	100Ω -1M	10Ω - 1M				
BLU1206	.125W	.25W	150V*	300V	5, 10	100Ω -100K	100Ω -249K	100Ω -249K	.126±.006 [3.2±.15]	.063±.006 [1.6±.15]	.020±.006 [.50±.15]	.020±.010 [.51±.25]
					25,50,100	100Ω -100K	49.9Ω - 1M	10Ω - 1M				
BLU1210	.25W	.5W	200V*	400V	10	100Ω -100K	100Ω -130K	100Ω -130K	.126±.006 [3.2±.15]	.098±.008 [2.5±.2]	.024±.008 [.61±.2]	.020±.010 [.51±.25]
					25,50,100	100Ω -100K	51Ω -240K	10Ω - 510K				
BLU1612	.33W	.66W	250V*	500V	10	100Ω -100K	10Ω - 1M	10Ω - 1M	.165±.008 [4.2±.2]	.118±.008 [3.0±.2]	.028±.006 [.7±.15]	.030±.016 [.76±.4]
					25,50,100	100Ω -100K	10Ω - 1M	10Ω - 1M				

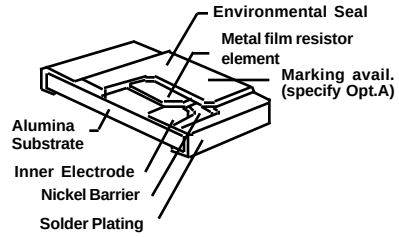
*Maximum working voltage determined by $E=\sqrt{PR}$, E should not exceed value listed. Increased voltage ratings available.
[1] Extended range available, consult factory.

TYPICAL PERFORMANCE CHARACTERISTICS

Requirements	Characteristics (5-25ppm)*	Test Method
Short Time Over Load	±0.05% (± 0.1% Opt.B)	Rated W x 2.5, 5 seconds at 25°C (not to exceed Max Overload Voltage)
Resistance to Soldering Heat	± 0.05%	260 ± 5°C, 3 seconds
High Temperature Exposure	± 0.1%	100 hours @ +125°C
Thermal Shock	± 0.1%	-55°C to +125°C, 0.5 hours, 5 cycles
Moisture Resistance	± 0.2%	Mil-STD-202 M.103 95% RH 1000 hrs
Load Life (1000 hours)	± 0.1% (±0.2% Opt.B)	Rated W per Mil-PRF-55342 4.8.11.1
Extended Life (10,000 hrs)	± 0.25% (±0.4% Opt.B)	Rated W per 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 Withstanding Voltage	250V (100V 0402 & 0603)	60 Seconds, terminal to ceramic

*The typical Δ R level of chips with 50ppm TCR is double that of chips with 5 to 25ppm

CONSTRUCTION



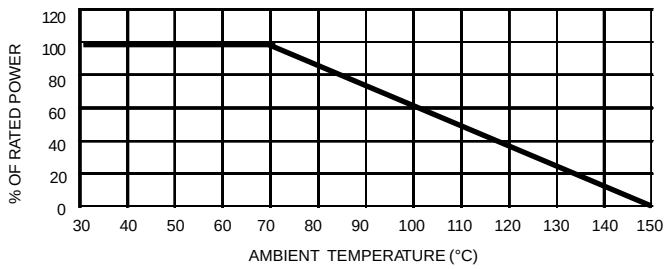
P/N DESIGNATION:

BLU1206 ☐ 1002 - B T 25

RCD Type
Option Codes: P, M, ER, B, 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: 101=100ppm, 50=50ppm, 25=25ppm, 10=10ppm, 5=5ppm

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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