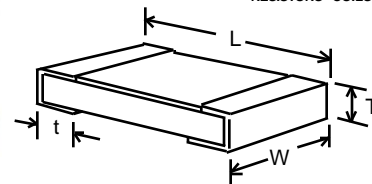


ULTRA PRECISION THIN FILM CHIP RESISTORS BLU SERIES

Type BLU1206A



FEATURES

- ☐ Industry's widest range of precision chip resistors!
- ☐ Tolerance to $\pm 0.01\%$, TCR to 5 ppm/ $^{\circ}\text{C}$
- ☐ 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†	TCR (PPM/ $^{\circ}\text{C}$)	Standard Resistance Range¹			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	33 Ω - 22K	.020 \pm .004	.01 \pm .002	.014 \pm .004	.01 \pm .005
					100	N/A	100 Ω - 10K	10 Ω - 22K	[.5 \pm .1]	[.25 \pm .05]	[.35 \pm .1]	[.25 \pm .12]
BLU0402	.05W	.075W	25V*	50V	25	N/A	100 Ω - 10K	100 Ω - 10K	.040 \pm .004	.020 \pm .002	.014 \pm .004	.01 \pm .005
					50,100	N/A	10 Ω - 100K	10 Ω - 100K	[1.0 \pm .1]	[.5 \pm .05]	[.35 \pm .1]	[.25 \pm .12]
BLU0603	.062W	.093W	50V*	100V	25,50	100 Ω - 10K	100 Ω - 33K	100 Ω - 100K	.063 \pm .008	.031 \pm .006	.018 \pm .006	.012 \pm .008
					100	100 Ω - 10K	10 Ω - 33K	10 Ω - 330K	[1.6 \pm .2]	[.8 \pm .15]	[.45 \pm .15]	[.3 \pm .2]
BLU0805	.10W	.125W	100V*	200V	5, 10	100 Ω - 100K	100 Ω - 100K	100 Ω - 100K	.079 \pm .006	.050 \pm .006	.018 \pm .006	.014 \pm .008
					25,50,100	100 Ω - 100K	100 Ω - 1M	10 Ω - 1M	[2.0 \pm .15]	[1.25 \pm .15]	[.45 \pm .15]	[.30 \pm .2]
BLU1206	.125W	.25W	150V*	300V	5, 10	100 Ω - 100K	100 Ω - 249K	100 Ω - 249K	.126 \pm .006	.063 \pm .006	.020 \pm .006	.020 \pm .010
					25,50,100	100 Ω - 100K	49.9 Ω - 1M	10 Ω - 1M	[3.2 \pm .15]	[1.6 \pm .15]	[.50 \pm .15]	[.51 \pm .25]
BLU1210	.25W	.5W	200V*	400V	10	100 Ω - 100K	100 Ω - 130K	100 Ω - 130K	.126 \pm .006	.098 \pm .008	.024 \pm .008	.020 \pm .010
					25,50,100	100 Ω - 100K	51 Ω - 240K	10 Ω - 510K	[3.2 \pm .15]	[2.5 \pm .2]	[.61 \pm .2]	[.51 \pm .25]
BLU1612	.33W	.66W	250V*	500V	10	100 Ω - 100K	10 Ω - 1M	10 Ω - 1M	.165 \pm .008	.118 \pm .008	.028 \pm .006	.030 \pm .016
					25,50,100	100 Ω - 100K	10 Ω - 1M	10 Ω - 1M	[4.2 \pm .2]	[3.0 \pm .2]	[.7 \pm .15]	[.76 \pm .4]

*Maximum working voltage determined by $E = \sqrt{PR}$, E should not exceed value listed. Increased voltage ratings available.


†Extended range available, consult factory.

TYPICAL PERFORMANCE CHARACTERISTICS

Requirements	Characteristics (5-25ppm)*	Test Method
Short Time Over Load	$\pm 0.05\%$ ($\pm 0.1\%$ Opt.B)	Rated W x 2.5, 5 seconds at 25 $^{\circ}\text{C}$ (not to exceed Max Overload Voltage)
Resistance to Soldering Heat	$\pm 0.05\%$	260 \pm 5 $^{\circ}\text{C}$, 3 seconds
High Temperature Exposure	$\pm 0.1\%$	100 hours @ +125 $^{\circ}\text{C}$
Thermal Shock	$\pm 0.1\%$	-55 $^{\circ}\text{C}$ to +125 $^{\circ}\text{C}$, 0.5 hours, 5 cycles
Moisture Resistance	$\pm 0.2\%$	MIL-STD-202 M.103 95% RH 1000 hrs
Load Life (1000 hours)	$\pm 0.1\%$ ($\pm 0.2\%$ Opt.B)	Rated W per MIL-PRF-55342 4.8.11.1
Extended Life (10,000 hrs)	$\pm 0.25\%$ ($\pm 0.4\%$ 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 ΔR level of chips with 50ppm TCR is double that of chips with 5 to 25ppm

P/N DESIGNATION:

RCD Type **BLU1206**  **1002** - **B** **T** **25**

Option Codes: P, M, ER, B, A (leave blank if standard)

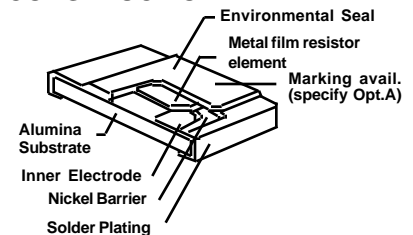
4-Digit Resistance Code: 3 signif. digits & multiplier (10R0=10 Ω , 1000=100 Ω , 1001=1K Ω)

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

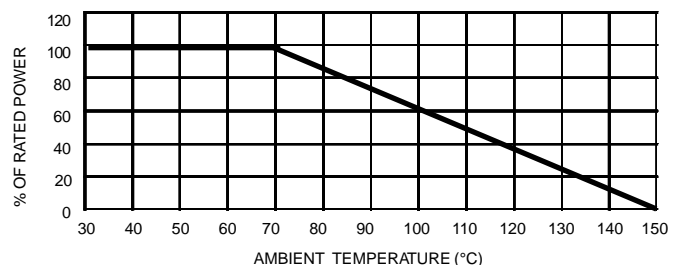
TC: 101=100ppm, 50=50ppm, 25=25ppm, 10=10ppm, 5=5ppm

CONSTRUCTION



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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FA013 Specifications subject to change without notice