



MEGASTAR-OHM'S RLC series is the best choice where low resistance values and stability are critical. The RLC series provides an SMD solution for current sensing and current limiting functions. Power supply, motor control and safety/overload related circuitry are just a few of the many applications where this component has significant value.

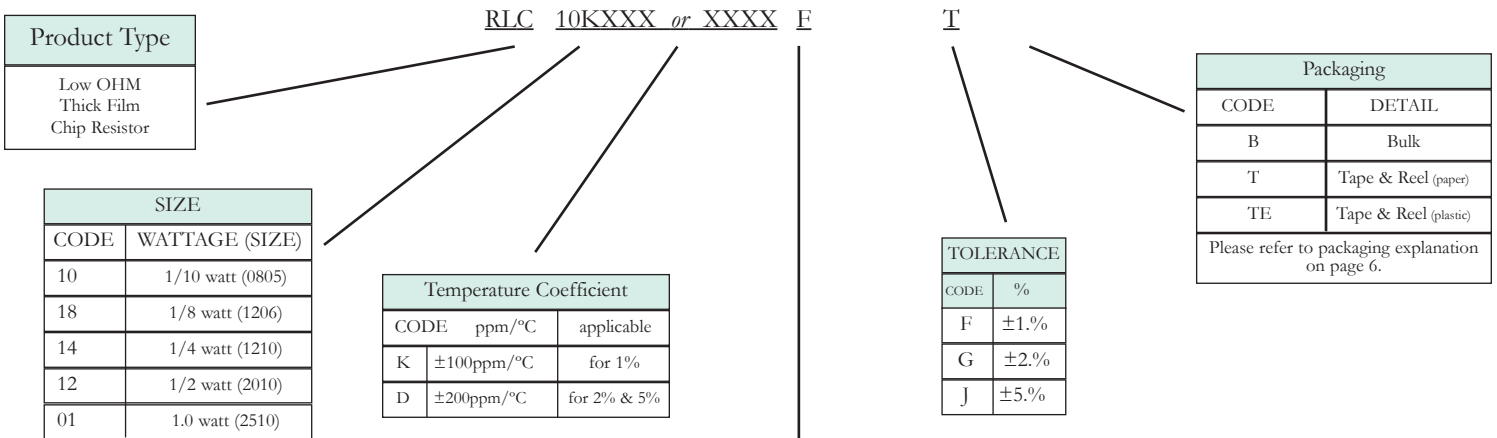
## FEATURES

1. Anti-leaching nickel barrier terminations
2. Meets EIA 575,EIA PDP-100, MIL-R 55342D, UL94V-O
3. Resistance values as low as 0.1Ω .
4. Excellent solderability for all soldering methods due to superior termination composition/construction.
5. Operating temperatures from -55 to 125°C.
6. Available in tape and reel for auto placement.

## RATINGS

PART DESIGNATION	POWER RATING @70°C	TCR (PPM/°C) MAX	RESISTANCE RANGE (E-96)*** (F±1%)	RESISTANCE RANGE (E-24)*** (G±2%) (J±5%)	ABSOLUTE MAXIMUM WORKING VOLTAGE	MAXIMUM OVERLOAD VOLTAGE 5 sec. max.	OPERATING TEMPERATURE RANGE
RLC10 (0805 size)	125m W	±100	0.2Ω -9.76Ω		1.10 V	2.75 V	-55°C   +175°C
		±200		0.1Ω -9.1Ω			
RLC18 (1206 size)	250mW	±100	0.2Ω -9.76Ω		1.56 V	3.90 V	
		±200		0.1Ω -9.1Ω			
RLC14 (1210 size)	500m W	±100	0.2Ω -9.76Ω		2.20 V	5.52 V	
		±200		0.1Ω -9.1Ω			
RLC12 (2010 size)	750m W	±100	0.2Ω -9.76Ω		2.70 V	6.75 V	
		±200		0.1Ω -9.1Ω			
RLC01 (2512 size)	1000m W	±100	0.2Ω -9.76Ω		3.12 V	7.8 V	
		±200		0.1Ω -9.1Ω			

## Part Numbering System



## RESISTANCE VALUE

### 3-DIGIT CODE

for 2% and 5% tolerance E<sub>24</sub> xxx

CODE	R10	R22	R47	1R1	3R9	5R6	8R2	9R1
VALUES (Ω)	0.10	.22	0.47	1.10	3.90	5.60	8.20	9.10

First two (2) digits are significant figures and third digit is number of zeros.  
Letter "R" indicates decimal values under 100 ohms.

### 4-DIGIT CODE

for 1% tolerance E<sub>96</sub> xxxx

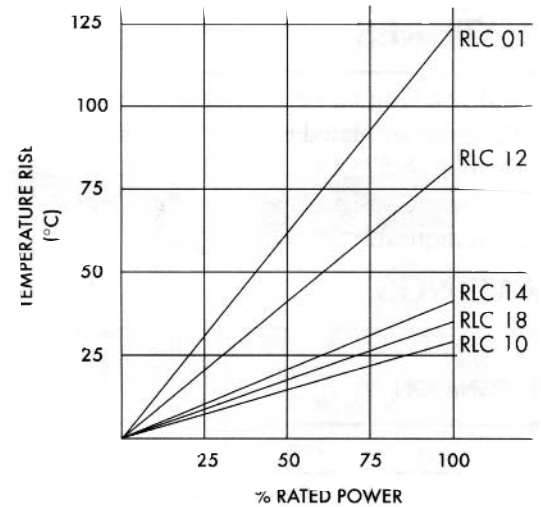
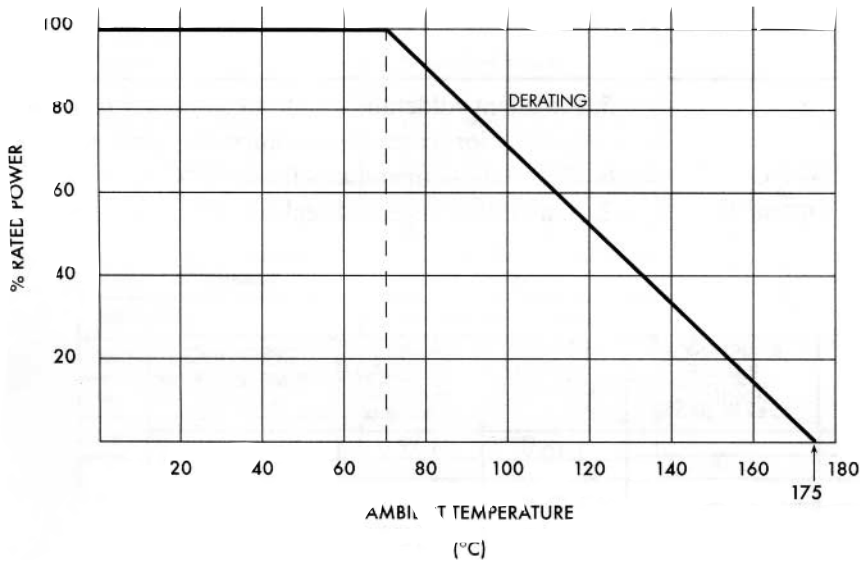
CODE	R215	R316	R464	6R81	7R87	8R06	8R66	9R76
VALUES (Ω)	.215	.316	.464	6.81	7.87	8.06	8.66	9.76

First three (3) digits are significant figures and fourth digit is number of zeros.  
Letter "R" indicates decimal values under 100 ohms.



RLC 10, 18, 14, 12, 01

## ENVIRONMENTAL APPLICATIONS



PARAMETER	MAXIMUM <sup>3</sup> R	Test Method
Thermal Shock	± 1.0%	MIL-STD-202F, Method 107D -55°C ~ +125°C, 100 cycles
Low Temperature Operation	± 1.0%	MIL-R-55342D 4.7.4 1 hour @ -55°C followed by 45 minutes of RCWV**
High Temperature Operation	± 1.0%	MIL-R-55342D 4.7.6 1000 hours @ 125°C
Short Time Overload	± 2.0%	MIL-R-55342D 4.7.5 2.5 X RCWV for 5 seconds
Resistance to Solder Heat	± 1.0%	MIL-R-55342D 4.7.7 260°C for 10 seconds
Terminal Strength-Bend	± 1.0%	RLC10 & RLC18 5mm RLC14, RLC12, RLC01 2mm
Moisture Resistance	± 2.0%	MIL-STD-202F, Method 106E 10 cycles, 240 hours
Life	± 2.0%	MIL-STD-202F, Method 108A 70°C, 1000 hours @ RCWV, 1.5 Hr ON, 0.5 Hr OFF
MINIMUM		
Terminal Adhesion	15 Grams	Axial Pull, One Terminal at a Time
Dielectric Withstanding Voltage RLC10 RLC18 RLC14 RLC12 RLC01	500V	
Insulation Resistance	10,000 M	

\*\*RCWV - Rated Continuous Working Voltage