



# Low resistance chip resistors (short-side terminal)

## RL series

### Features

- Innovative structure that takes consideration of heat dissipation suppress the surface temperature enabling the small sizes reducing the influence of heat on surrounding components.

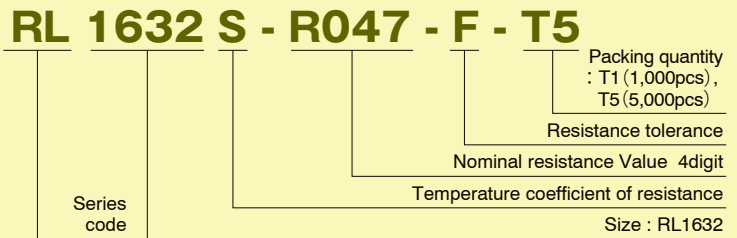
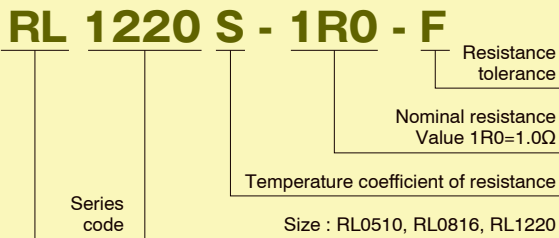
### Applications

- PC power sources, inverters, automotive electronics, adapters, industrial machines



\*1 : Except for RL0510, RL1632 and RL3264

### ◆Part numbering system



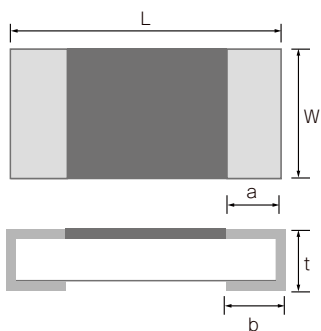
### ◆Electrical Specification

Type	Power ratings	Temperature coefficient of resistance (ppm/°C)	Resistance range(Ω) Resistance tolerance			Maximum voltage	Resistance value series	Operating temperature	Packaging quantity
			±1% (F)	±2% (G)	±5% (J)				
RL0510	1/8W	0 ~ +350(T)	50m < R < 100m		—	√(P · R)	E-24	-55°C - 125°C	10,000pcs
	1/6W	0 ~ +200(S)	100m ≤ R ≤ 47		—				
RL0816	1/4W	0 ~ +200(S)	20m ≤ R < 100m		—				
		0 ~ +350(T)	20m ≤ R < 100m						
	1/5W	0 ~ +100(R)	100m ≤ R ≤ 6.8	—					
		0 ~ +200(S)	7.5 ≤ R ≤ 68						
RL1220	1/4W	0 ~ +200(S)	43m ≤ R ≤ 91m		—				
		0 ~ +350(T)	10m ≤ R ≤ 91m						
	1/3W	0 ~ +100(R)	100m ≤ R ≤ 10						
		0 ~ +200(S)	11 ≤ R ≤ 100						
RL1632	1/2W	0 ~ +100(R)	510m ≤ R ≤ 4.7 <sup>*1</sup>	56m ≤ R ≤ 470m		—	—		
		0 ~ +200(S)	—	33m ≤ R ≤ 51m		—			
		0 ~ +350(T)	—	27m ≤ R ≤ 30m		18m ≤ R ≤ 24m			
		0 ~ +500(T)	—	—		10m ≤ R ≤ 16m			

\*1 RL series with resistance tolerance 0.5% is also available. Please contact our sales office.

Current sensing surface mount resistors  
RL series

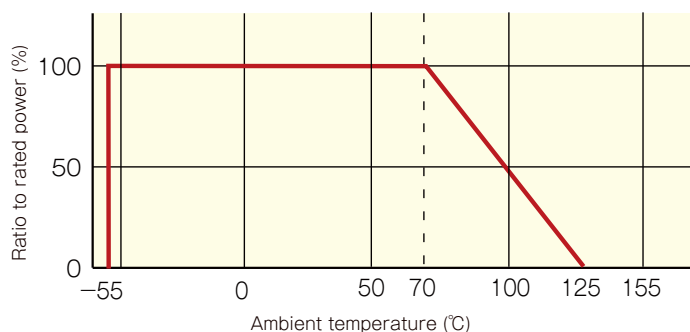
### ◆ Dimensions



Type	Size (inch)	L	W	a	b	t
RL0510	0402	1.00±0.05	0.50±0.05	0.15±0.10	0.25±0.10	0.35+0.15/-0.10
						0.15±0.10
RL0816	0603	1.60±0.20	0.80±0.20	0.20±0.15	0.25±0.20	0.45+0.15/-0.10
						0.20±0.15
RL1220	0805	2.00±0.20	1.25±0.20	0.40±0.20	0.40±0.20	0.50±0.20
						0.40±0.10
RL1632	1206	3.20±0.20	1.60±0.20	—	1.00±0.15	0.50±0.15

(unit : mm)

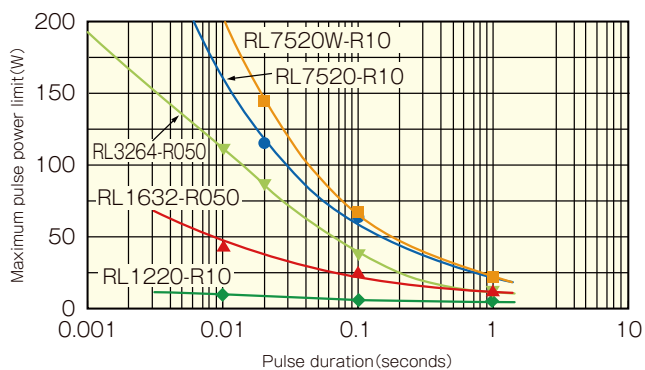
### ◆ Derating Curve



Current sensing surface mount resistors

RL series

### ◆ Resistance to pulse power



#### Test procedure

Voltage pulse is applied to the test samples mounted on the test board.  
 After each pulse, resistance drift is measured. Pulse voltage is increased until the drift exceeds +/-0.5%.  
 The power at that voltage is defined as the maximum pulse power.

# Mouser Electronics

Authorized Distributor

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## Susumu:

[RL0816S-1R0-F](#) [RL0816S-1R0-G](#) [RL0816S-1R2-F](#) [RL0816S-1R2-G](#) [RL0816S-1R5-F](#) [RL0816S-1R5-G](#) [RL0816S-1R8-F](#) [RL0816S-1R8-G](#) [RL0816S-2R2-F](#) [RL0816S-2R2-G](#) [RL0816S-2R7-F](#) [RL0816S-2R7-G](#) [RL0816S-3R3-F](#) [RL0816S-3R3-G](#) [RL0816S-3R9-F](#) [RL0816S-3R9-G](#) [RL0816S-4R7-F](#) [RL0816S-4R7-G](#) [RL0816S-5R6-F](#) [RL0816S-5R6-G](#) [RL0816S-6R8-F](#) [RL0816S-6R8-G](#) [RL0816S-R10-F](#) [RL0816S-R10-G](#) [RL0816S-R12-F](#) [RL0816S-R12-G](#) [RL0816S-R15-F](#) [RL0816S-R15-G](#) [RL0816S-R18-F](#) [RL0816S-R18-G](#) [RL0816S-R22-F](#) [RL0816S-R22-G](#) [RL0816S-R27-F](#) [RL0816S-R27-G](#) [RL0816S-R33-F](#) [RL0816S-R33-G](#) [RL0816S-R39-F](#) [RL0816S-R39-G](#) [RL0816S-R47-F](#) [RL0816S-R47-G](#) [RL0816S-R56-F](#) [RL0816S-R56-G](#) [RL0816S-R68-F](#) [RL0816S-R68-G](#) [RL0816S-R82-F](#) [RL0816S-R82-G](#) [RL0816T-R022-F](#) [RL0816T-R022-G](#) [RL0816T-R027-F](#) [RL0816T-R027-G](#) [RL0816T-R033-F](#) [RL0816T-R033-G](#) [RL0816T-R039-F](#) [RL0816T-R039-G](#) [RL0816T-R047-F](#) [RL0816T-R047-G](#) [RL0816T-R056-F](#) [RL0816T-R056-G](#) [RL0816T-R068-F](#) [RL0816T-R068-G](#) [RL0816T-R082-F](#) [RL0816T-R082-G](#) [RL1220S-100-F](#) [RL1220S-1R0-F](#) [RL1220S-1R2-F](#) [RL1220S-1R5-F](#) [RL1220S-1R8-F](#) [RL1220S-2R2-F](#) [RL1220S-2R7-F](#) [RL1220S-3R3-F](#) [RL1220S-3R9-F](#) [RL1220S-4R7-F](#) [RL1220S-5R6-F](#) [RL1220S-6R8-F](#) [RL1220S-8R2-F](#) [RL1220S-R10-F](#) [RL1220S-R12-F](#) [RL1220S-R15-F](#) [RL1220S-R18-F](#) [RL1220S-R22-F](#) [RL1220S-R27-F](#) [RL1220S-R33-F](#) [RL1220S-R39-F](#) [RL1220S-R47-F](#) [RL1220S-R56-F](#) [RL1220S-R68-F](#) [RL1220S-R82-F](#) [RL1220T-100-G](#) [RL1220T-1R0-G](#) [RL1220T-1R2-G](#) [RL1220T-1R5-G](#) [RL1220T-1R8-G](#) [RL1220T-2R2-G](#) [RL1220T-2R7-G](#) [RL1220T-3R3-G](#) [RL1220T-3R9-G](#) [RL1220T-4R7-G](#) [RL1220T-5R6-G](#) [RL1220T-6R8-G](#) [RL1220T-8R2-G](#)