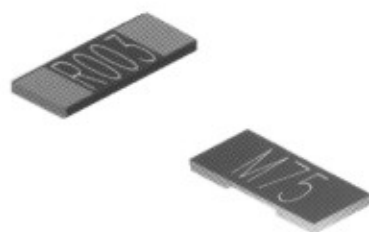


THUNDER[®]

Ultra Low Ohm (Metal Strip) Chip Resistor-LR Series

LR**Features**

- High Wattage Rating Up to 3W
- Low TCR $\pm 50, \pm 100$ PPM/°C
- Resistance Values from 0.5 to 20 m ohms
- Without Laser Trimmed with Very Low Inductance
- Customized Resistance Available

Applications

- NB (for Power Management)
- MB (for Power Management)
- SWPS (DC-DC Converter, Charger, Adaptor)
- Monitor (for Power Management)

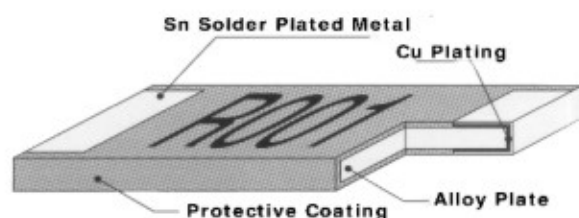
Construction

Figure 1

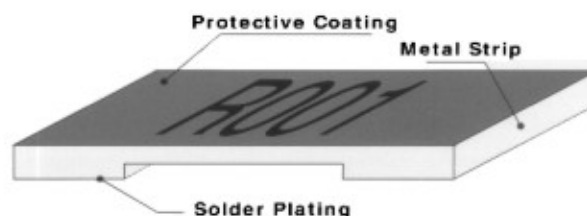
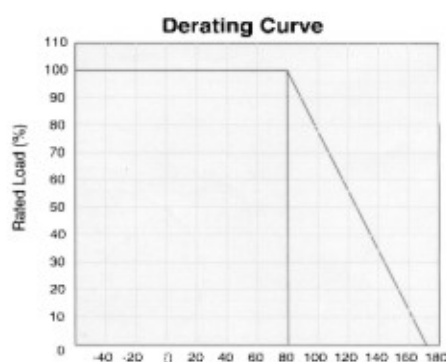


Figure 2

**Part Numbering**

LR	12	J	T	E	S	R003	G
①	②	③	④	⑤	⑥	⑦	⑧

① Product Type

Product Type	Description
LR	Ultra Low Ohm Metal Strip Chip Resistor

② Dimensions (LxW)

Codes	Dimensions (LxW)	EIA
LR12	6.3x3.1mm	2512

③ Resistance Tolerance

Codes	Resistance Tolerance
J	$\pm 5\%$
H	$\pm 3\%$
G	$\pm 2\%$
F	$\pm 1\%$

④ Packaging

Code	Type
T	Taping Reel

⑤ TCR

Codes	Type
D	± 50 PPM/°C
W	± 75 PPM/°C
E	± 100 PPM/°C
K	± 150 PPM/°C

⑥ Power Rating

Codes	Type
S	Standard (1W)
R	(2W)
B	(3W)
	(2.5W)

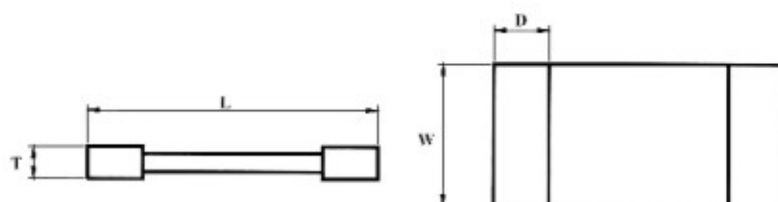
⑦ Resistance

Codes	Type
0M50	0.00050 Ω
0M75	0.00075 Ω
1M50	0.00150 Ω
R002	0.00200 Ω
R020	0.02000 Ω

⑧ Protective Coating

Codes	Type
	Black Coating
G	Green Coating

Dimensions



Unit: mm

Part No.	Resistance(m Ω)	L	W	T	D
LR12□T□□□□□G	0.50~0.75	6.35±0.25	3.18±0.35	1.00±0.20	1.93±0.75
LR12□T□□□□□G	1.0~22	6.35±0.25	3.18±0.35	0.60±0.20	1.93±0.75
LR12□T□0M50	0.50	6.35±0.25	3.18±0.25	1.40±0.20	1.30±0.30
LR12□T□0M75	0.75	6.35±0.25	3.18±0.25	1.00±0.20	1.30±0.30
LR12□T□R001	1.00	6.35±0.25	3.18±0.25	0.80±0.20	1.30±0.30
LR12□T□1M50	1.50	6.35±0.25	3.18±0.25	0.65±0.20	1.30±0.30
LR12□T□R002	2.00	6.35±0.25	3.18±0.25	0.50±0.20	1.30±0.30
LR12□T□2M50	2.50	6.35±0.25	3.18±0.25	1.00±0.20	1.30±0.30
LR12□T□R003	3.00	6.35±0.25	3.18±0.25	0.70±0.20	1.30±0.30
LR12□T□3M50	3.50	6.35±0.25	3.18±0.25	0.71±0.20	1.30±0.30
LR12□T□R004	4.00	6.35±0.25	3.18±0.25	0.60±0.20	1.30±0.30
LR12□T□4M50	4.50	6.35±0.25	3.18±0.25	0.58±0.20	1.30±0.30
LR12□T□R005	5.00	6.35±0.25	3.18±0.25	0.50±0.20	1.30±0.30
LR12□T□5M50	5.50	6.35±0.25	3.18±0.25	0.47±0.20	1.30±0.30
LR12□T□R006	6.00	6.35±0.25	3.18±0.25	0.50±0.20	1.30±0.30
LR12□T□6M50	6.50	6.35±0.25	3.18±0.25	0.47±0.20	1.30±0.30
LR12□T□R007	7.00	6.35±0.25	3.18±0.25	0.45±0.20	1.30±0.30
LR12□T□R010	10.0	6.50±0.35	3.20±0.25	0.80±0.15	1.90±0.15

Standard Electrical Specifications

Type	Item	Power Rating at 80°C	Operating Temp. Range	Resistance Tolerance (±%)	Resistance (mΩ)	TCR (PPM/°C)
LR12□TD□□□□□□		1W	-55°C ~ +170°C	1,3,5	0.5~2.0	50
LR12□TK□□□□□□		1W		1,3,5	2.5~3.0	150
LR12□TE□□□□□□		1W		1,3,5	4.0~5.5	100
LR12□TW□□□□□□		1W		1,3,5	6.0~7.0	75
LR12□TER010		1W		1,3,5	10	100
LR12□TD□□□□□G		1W		1,3,5	8.0~22	50

Operating Current $I = \sqrt{P/R}$; Operating Voltage $V = \sqrt{P \cdot R}$

High Power Rating Electrical Specifications

Type	Item	Power Rating at 80°C	Operating Temp. Range	Resistance Tolerance (±%)	Resistance (mΩ)	TCR (PPM/°C)
LR12□TDS□□□□□□		2.0W	-55°C ~ +170°C	1,3,5	0.5~2.0	50
LR12□TDS□□□□□G		2.0W		1,3,5	7.0~10.0	50
LR12□TDB□□□□□G		2.5W		1,3,5	4.0~6.0	50
LR12□TWR□□□□□G		3.0W		1,3,5	3.0	75
LR12□TDR□□□□□G		3.0W		1,3,5	1.0~2.0	50
LR12□TER□□□□□G		3.0W		1,3,5	0.5~0.75	100

Operating Current $I = \sqrt{P/R}$; Operating Voltage $V = \sqrt{P \cdot R}$

* Viking is capable of manufacturing the optional spec based on customer's requirement.