



Data Sheet

Customer: _____

Product: Low Ohm (Metal Strip) Chip Resistor – LRP Series

Size: 1206

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[LRP06 Series]



Low Ohm (Metal Strip) Chip Resistor

Low Ohm (Metal Strip) Chip Resistor- LRP Series

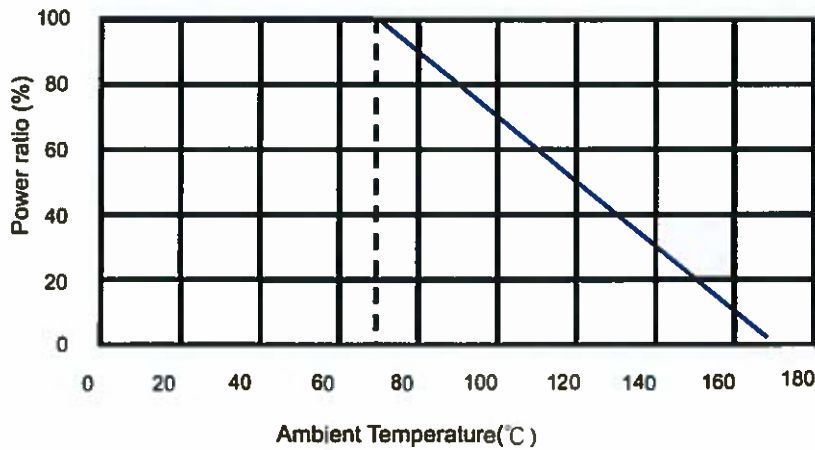
■ Features

- High power rating up to 1 Watts
- Low TCR down to ± 100 PPM/ $^{\circ}$ C
- Resistance values from 8m to 15m ohm
- Customized resistance available

■ Applications

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

■ Derating Curve



■ Part Numbering

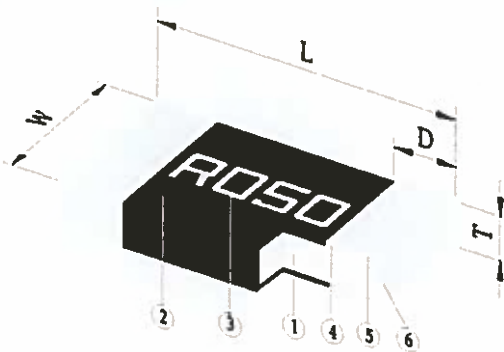
LRP	06	F	T	E	T	R015	
Product Type	Dimensions (L×W)	Resistance Tolerance	Packaging Code	TCR (PPM/ $^{\circ}$ C)	Power Rating	Resistance	Marking
	06:1206	F: $\pm 1\%$ J: $\pm 5\%$	T: Taping Reel	E: ± 100	T: 1W	R008: 0.008 Ω R010: 0.01 Ω R012: 0.012 Ω R015: 0.015 Ω	N: No Marking

[LRP06 Series]



Low Ohm (Metal Strip) Chip Resistor

■ Dimensions



① Alloy Plate	④ Internal Electrode (Cu)
② Overcoat (Epoxy)	⑤ Barrier Layer (Ni)
③ Marking	⑥ Solder Plating (Sn)

Type	Size (Inch)	L (mm)	W (mm)	T (mm)	D (mm)
LRP06	1206	3.1±0.10	1.6±0.10	0.6±0.10	0.45±0.15

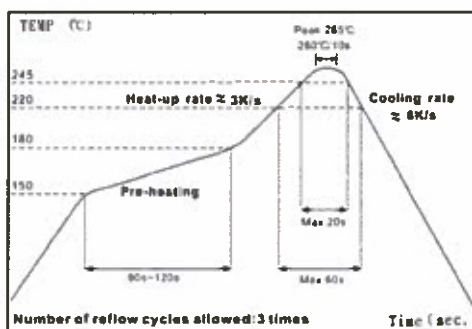
■ Electrical Specifications

Item Type	Power Rating at 70°C	Operating Temp. Range	Resistance Range (mΩ)		TCR (PPM/°C)
			±1%	±5%	
LRP06 (1206)	1W	-55 ~ +170°C	8 · 10 · 12 · 15		±100

Operating Current = $\sqrt{P/R}$, Operating Voltage = $\sqrt{P \cdot R}$

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

■ Soldering Condition



IR Reflow Soldering

- (1) Time of IR reflow soldering at maximum temperature point 260°C : 10s
- (2) Time of soldering iron at maximum temperature point 410°C : 5s

[LRP06 Series]

Low Ohm (Metal Strip) Chip Resistor


■ Environmental Characteristics

Item	Requirement	Test Method
Temperature Coefficient of Resistance (T.C.R.)	As Spec.	IEC60115-1 4.8 JIS-C-5201-1 4.8 -55°C~+125°C, 25°C is the reference temperature
Short Time Overload	±1.0%	IEC60115-1 4.13 JIS-C-5201-1 4.13 5*rated power for 5 seconds
Insulation Resistance	>100MΩ	IEC60115-1 4.6 JIS-C-5201-1 4.13 100V DC for 1 minute
Endurance	±1.0%	IEC60115-1 4.25 JIS-C-5201-1 4.25.1 70±2°C, rated power for 1000 hrs with 1.5 hrs "ON" and 0.5 hrs "OFF"
Biased Humidity	±1.0%	MIL-STD-202 Method 103 1000 hrs 85°C/85%RH 10% of operating power
Dry Heat	±1.0%	IEC60115-1 4.23.2 JIS-C-5201-1 4.23.2 at +170°C for 1000 hrs
Bending Strength	±1.0%	JIS-C-5201-1 4.33 IEC-60115-1 4.33 Bending width 3mm once for 5 seconds
Solderability	95% min. coverage	JIS-C-5201-1 4.17 IEC-60115-1 4.17 245±5°C for 3 seconds
Resistance to Soldering Heat	±0.5%	JIS-C-5201-1 4.18 IEC-60115-1 4.18 260±5°C for 10 seconds
Rapid Change of Temperature	±1.0%	JIS-C-5201-1 4.19 IEC-60115-1 4.19 -55°C to +155°C, 5 cycles
Low Temperature Storage	±1.0%	IEC60115-1 4.23.4 JIS-C-5201-1 4.23.4 at -55°C for 1000 hrs

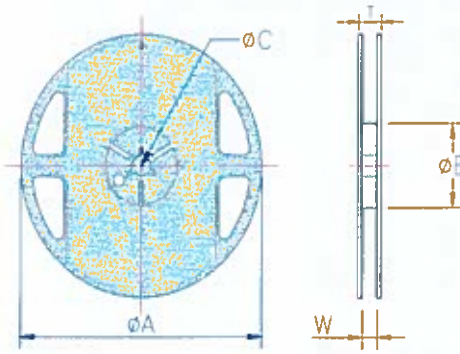
[LRP06 Series]



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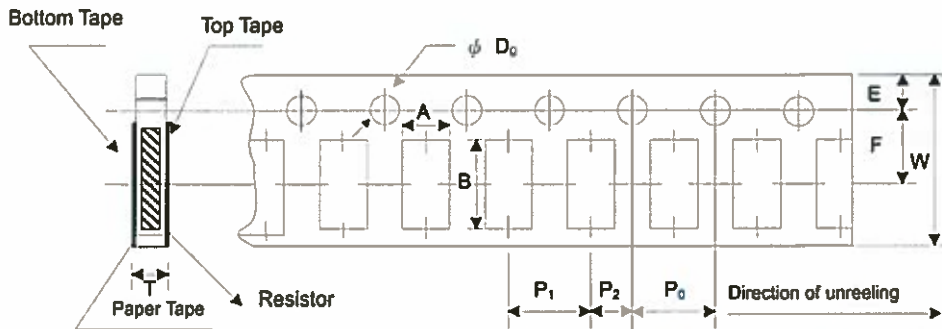
■ Packaging

Reel Specifications & Packaging Quantity



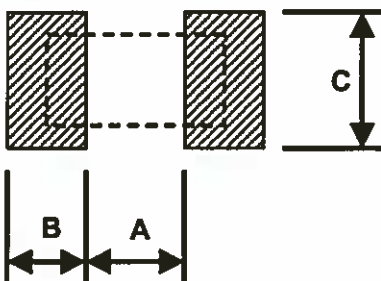
Type	Packaging Quantity	Tape Width	Reel Diameter	ΦA (mm)	ΦB (mm)	ΦC (mm)	W (mm)	T (mm)
LRP06	Paper	5K	8mm	7 inch	178.5±1.5	60 ^{+1/-0}	13.0±0.2	9.0±0.5

Paper Tape Specifications



Type	A (mm)	B (mm)	W (mm)	E (mm)	F (mm)	P ₀ (mm)	P ₁ (mm)	P ₂ (mm)	ΦD ₀ (mm)	T (mm)
LRP06	1.90±0.10	3.50±0.20	8.0±0.20	1.75±0.10	3.50±0.05	4.00±0.10	4.00±0.05	2.00±0.05	1.50+0.1,-0	0.85±0.10

■ Recommend Land Pattern



Type	A (mm)	B (mm)	C (mm)
LRP06	1.50	1.40	1.70