

High Power Chip Resistors

<Wide Terminal type>

LTR18 (3216 size : 1 / 2W)

●Features

- 1) Improved welding strength
The structure of longer electrodes provides the wider welding area than the chip resistors with normal electrodes, and this enhanced the solder welding strength.
- 2) Increased surge-resistance
This is achieved by Rohm's original trimming technology plus resistive element patterning.
- 3) High-power tolerance
Two times of the rated power is guaranteed than the normal-electrode resistors.
ROHM resistors are ISO-9001 & ISO/TS16949 certified.

●Applications

Automotive, industrial and power supply.

●Ratings

Design and specifications are subject to change without notice.
Carefully check the specification sheet before using or ordering it.

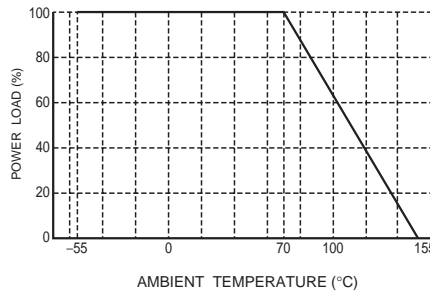
Item	Conditions	Specifications	
Rated power	<p>Power must be derated according to the power derating curve in Figure 1 when ambient temperature exceeds 70°C.</p> <div></div> <p>Fig.1</p>	0.5W (1 / 2W) at 70°C	
Rated voltage	<p>The voltage rating is calculated by the following equation. If the value obtained exceeds the limiting element voltage, the voltage rating is equal to the maximum operating voltage.</p> <div>$E = \sqrt{P \times R}$<p>E: Rated voltage (V) P: Rated power (W) R: Nominal resistance (Ω)</p></div>		
		Limiting element voltage	200V
Nominal resistance	See Table 1.		
Operating temperature	D(±0.5%) F(±1%) J(±5%)	-55°C to + 155°C	

Table 1

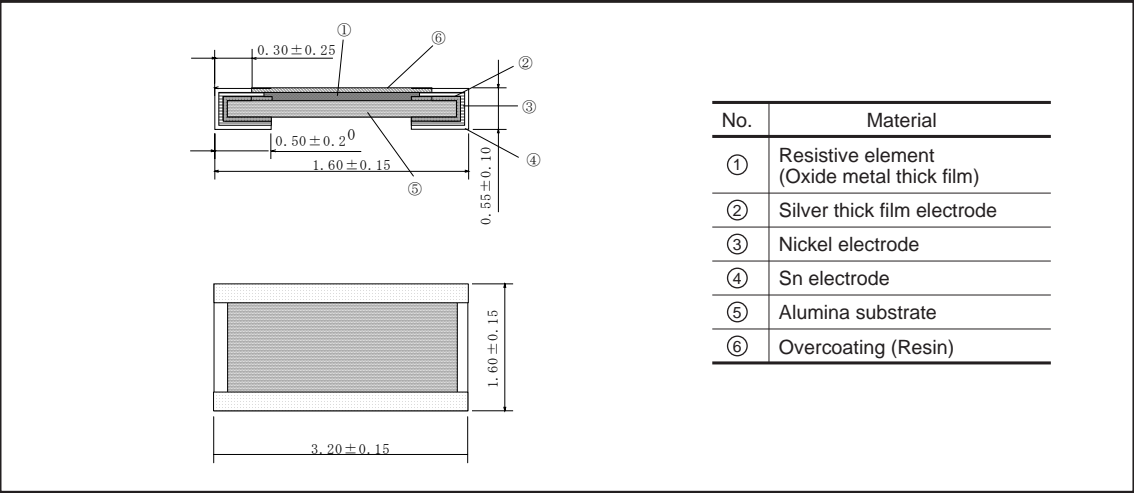
Resistance tolerance	Resistance range (Ω)	Resistance temperature coefficient (ppm/°C)
D (±0.5%)	10 to 1M (E24)	±100
F (±1%)	1 to 1M (E24)	±100
J (±5%)		±200

- Before using components in circuits where they will be exposed to transients such as pulse loads (short-duration, high-level loads), be certain to evaluate the component in the mounted state. In addition, the reliability and performance of this component cannot be guaranteed if it is used with a steady state voltage that is greater than its rated voltage.

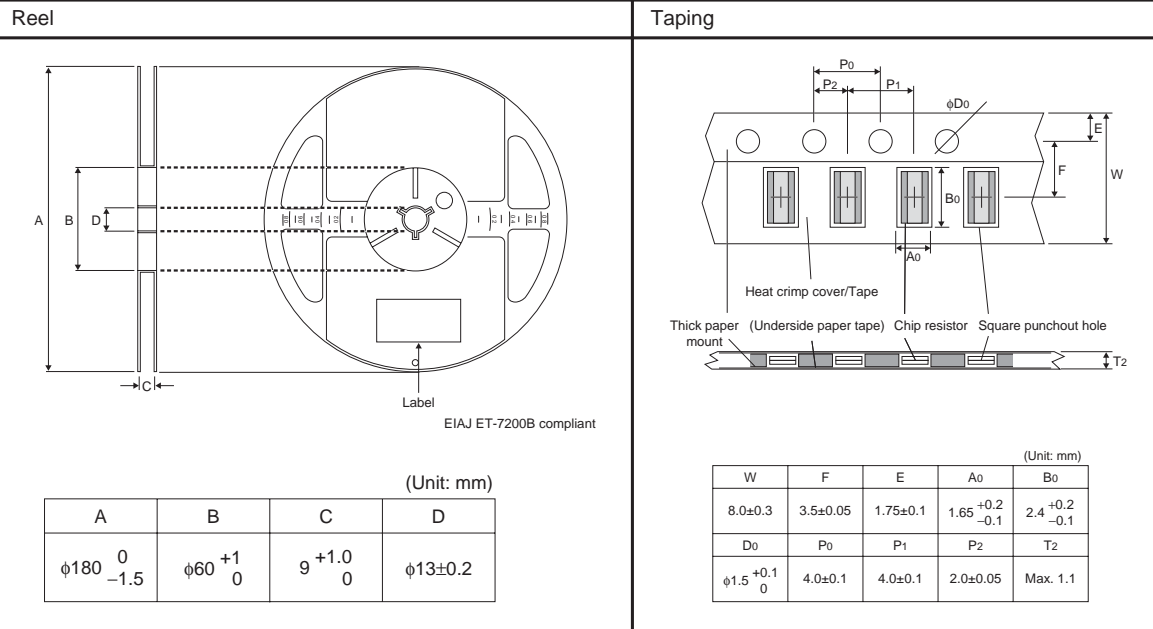
● Characteristics

Item	Guaranteed value	Test conditions (JIS C 5201-1)
	Resistor type	
Resistance	J : ±5% F : ±1% D : ±0.5%	JIS C 5201-1 4.5
Variation of resistance with temperature	See Table.1	JIS C 5201-1 4.8 Measurement : -55 / +25 / +125°C
Overload	± (2.0%+0.1Ω)	JIS C 5201-1 4.13 Rated voltage (current) ×2.5, 2s. Maximum overload voltage : 200V
Solderability	A new uniform coating of minimum of 95% of the surface being immersed and no soldering damage.	JIS C 5201-1 4.17 Rosin-Ethanol (25%WT) Soldering condition : 235±5°C Duration of immersion : 2.0±0.5s.
Resistance to soldering heat	± (1.0%+0.05Ω) No remarkable abnormality on the appearance.	JIS C 5201-1 4.18 Soldering condition : 260±5°C Duration of immersion : 10±1s.
Rapid change of temperature	± (1.0%+0.05Ω)	JIS C 5201-1 4.19 Test temp. : -55°C to +125°C 5cyc
Damp heat, steady state	± (3.0%+0.1Ω)	JIS C 5201-1 4.24 40°C, 93%RH Test time : 1,000h to 1,048h
Endurance at 70°C	± (3.0%+0.1Ω)	JIS C 5201-1 4.25.1 Rated voltage (current), 70°C 1.5h : ON – 0.5h : OFF Test time : 1,000h to 1,048h
Endurance	± (3.0%+0.1Ω)	JIS C 5201-1 4.25.3 155°C Test time : 1,000h to 1,048h
Resistance to solvent	± (1.0%+0.05Ω)	JIS C 5201-1 4.29 23±5°C, Immersion cleaning, 5±0.5min. Solvent : 2-propanol
Bend strength of the end face plating	± (1.0%+0.05Ω) Without mechanical damage such as breaks.	JIS C 5201-1 4.33
Static electric characteristics	± (5.0%+0.05Ω)	EIAJ ED-4701/300 Test method 304 Voltage : 3kv C : 100pF R : 1.5kΩ Apply cycle : 1 time

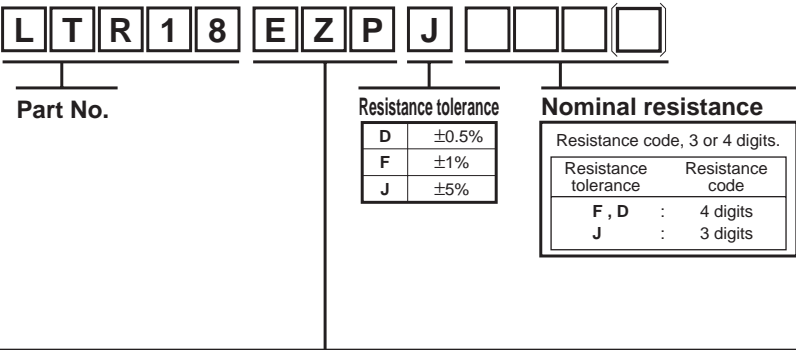
●Dimensions (Unit : mm)



●Packaging



●Part designation



Packaging Specifications Code

Part No.	Code	Resistance tolerance			Packaging specifications	Reel	Basic ordering unit (pcs)
		D(±0.5%)	F(±1%)	J(±5%)			
LTR18	EZP	⊙	⊙	⊙	Paper tape (4mm Pitch)	φ180mm (7inch)	5,000

Reel (φ180mm) : Compatible with JEITA standard "EIAJ ET-7200B"
⊙ : Standard product

Notes

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