

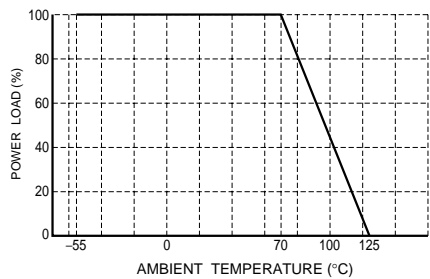
# Compact Film Chip Resistors

## MCR006 (0201 size : 1 / 20W)

### ●Features

- 1) Extremely small light  
Area ratio is 60% smaller than that of chip 1005, while weight ratio has been cut 80%.
- 2) Highly reliable chip resistor  
Ruthenium oxide dielectric offers superior resistance to the elements.
- 3) Electrodes not corroded by soldering  
Thick film makes the electrodes very strong.
- 4) Flat surface further facilitates mounting
- 5) ROHM resistors have approved ISO9001- / ISO/TS 16949- certification.  
Design and specifications are subject to change without notice. Carefully check the specification sheet supplied with the product before using or ordering it.

### ●Ratings

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>  <p style="text-align: center;">Fig.1</p>	0.05W (1 / 20W) 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> $E = \sqrt{P \times R}$ <p style="text-align: center;">           E: Rated voltage (V)            P: Rated power (W)            R: Nominal resistance (Ω)         </p>	<table border="1" style="width: 100%;"> <tr> <td style="width: 80%;">Limiting element voltage</td> <td>25V</td> </tr> </table>	Limiting element voltage	25V
Limiting element voltage	25V			
Nominal resistance	See Table 1.			
Operating temperature		-55°C to +125°C		

## Resistors

Jumper type	
Resistance	Max. 50mΩ
Rated current	0.5A
Operating temperature	-55°C to +125°C

Table 1

Resistance tolerance	Resistance range (Ω)	Resistance temperature coefficient (ppm / °C)
J (±5%)	1.0 to 9.1 (E24)	+600/-200
	10 to 10M (E24)	±250
F (±1%)	10 to 10M (E24)	±250
D (±0.5%)	10 to 910 (E24)	±200
	1k to 1M (E24)	±100

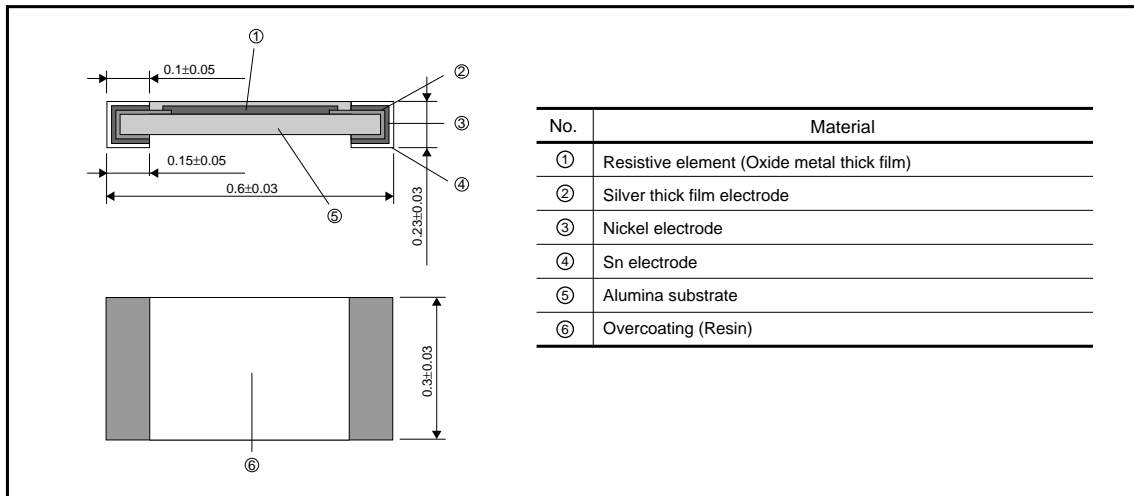
- Before using components in circuits where they will be exposed to transients such as pulse loads (short-duration, high-level loads), be certain to evaluate the component in the mounted state. In addition, the reliability and performance of this component cannot be guaranteed if it is used with a steady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

## ● Characteristics

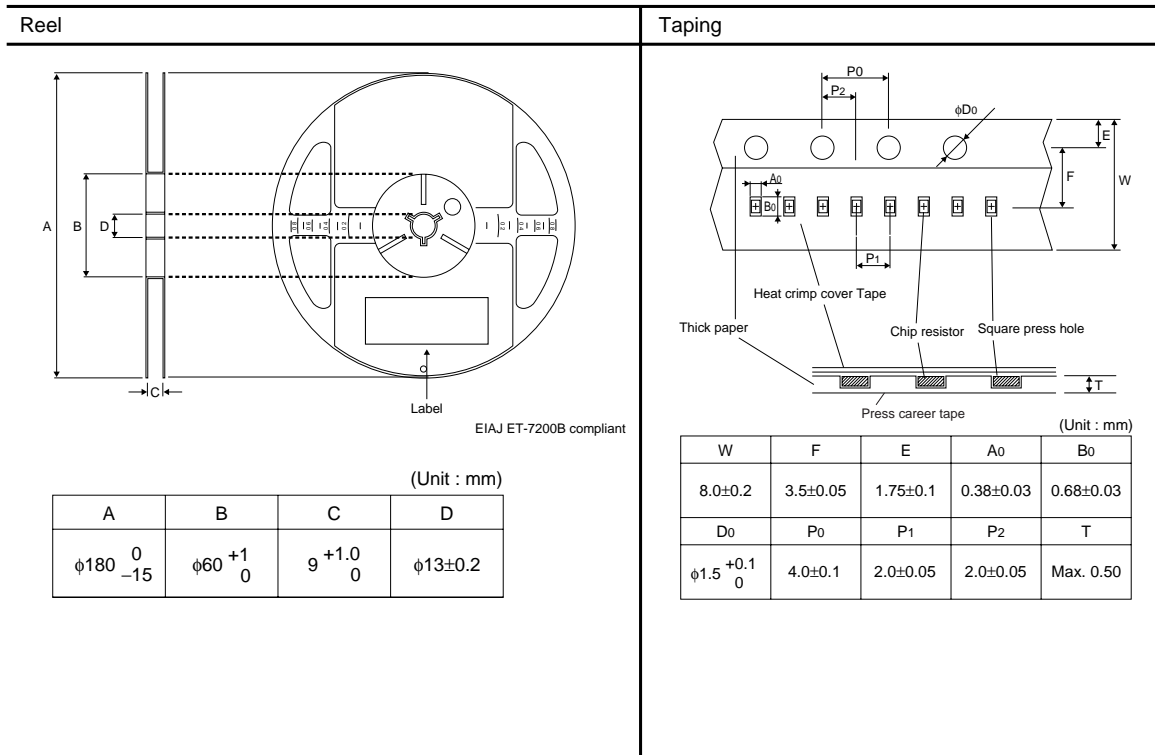
Item	Guaranteed value		Test conditions (JIS C 5201-1)
	Resistor type	Jumper type	
Resistance	J : ±5% F : ±1% D : ±0.5%	Max. 50mΩ	JIS C 5201-1 4.5
Variation of resistance with temperature	See Table.1	Max. 100mΩ	JIS C 5201-1 4.8 Measurement : +20 / -55 / +125°C
Overload	± (2.0%+0.1Ω)	Max. 50mΩ	JIS C 5201-1 4.13 Rated voltage (current) ×2.5, 2s. Maximum overload voltage : 50V
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.	Max. 50mΩ	JIS C 5201-1 4.18 Soldering condition : 260±5°C Duration of immersion : 10±1s.
Rapid change of temperature	± (1.0%+0.05Ω)	Max. 50mΩ	JIS C 5201-1 4.19 Test temp. : -55°C to +125°C 100cyc
Damp heat, steady state	± (3.0%+0.1Ω)	Max. 100mΩ	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)	Max. 100mΩ	JIS C 5201-1 4.25.1 Rated voltage (current), 70°C±3°C 1.5h : ON – 0.5h : OFF Test time : 1,000h to 1,048h
Endurance	± (3.0%+0.1Ω)	Max. 100mΩ	JIS C 5201-1 4.25.3 125°C Test time : 1,000h to 1,048h
Resistance to solvent	± (1.0%+0.05Ω)	Max. 50mΩ	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.	Max. 50mΩ	JIS C 5201-1 4.33

Resistors

●Dimensions (Unit : mm)

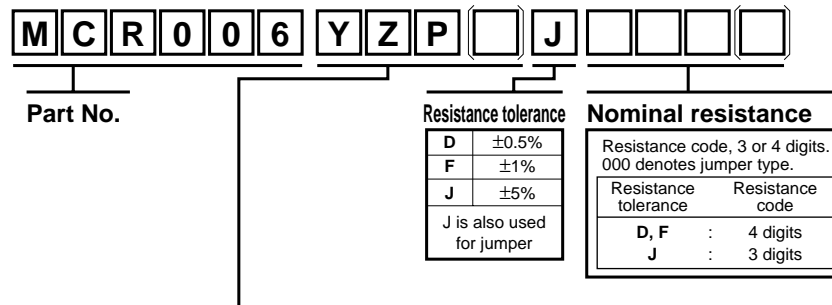


●Packaging



Resistors

●Part No. Explanation



**Packaging Specifications Code**

Part No.	Code	Resistance tolerance			Packaging specifications	Reel	Basic ordering unit (pcs)
		J(±5%)	F(±1%)	D(±0.5%)			
MCR006	YZP	◎	◎	◎	Paper tape (2mm Pitch)	φ180mm (7in.)	15,000

Reel (φ180) : JEITA ET-7200B  
 ◎ : Standard product

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