

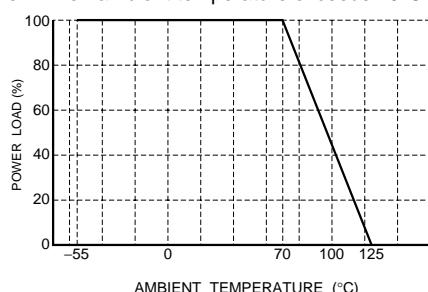
# Compact Chip Resistor Networks

## MNR32 (1206×2 size)

### ●Features

- 1) Convex electrodes  
Easy to check the fillet after soldering is finished.
- 2) Compatible with a wide range of mounting equipment.  
Squared corners make it excellent for mounting using image recognition devices.
- 3) High-density mounting  
Can be mounted even more densely than two 1206 chips (MCR18). Also, the number of parts and costs of mounting have been reduced.
- 4) 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>Fig.1</p>	0.125W (1 / 8W) 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>E: Rated voltage (V) P: Rated power (W) R: Nominal resistance (Ω)</p>	Limiting element voltage	200V
Nominal resistance	See <a href="#">Table 1</a> .		
Operating temperature		-55°C to 125°C	

## Resistors

## Jumper type

Resistance	Max. 50mΩ
Rated current	2A
Operating temperature	-55°C to 125°C

Table 1

Resistance tolerance	Resistance range (Ω)	Resistance temperature coefficient (ppm / °C)
J ( $\pm 5\%$ )	10≤R≤1M (E24)	±200

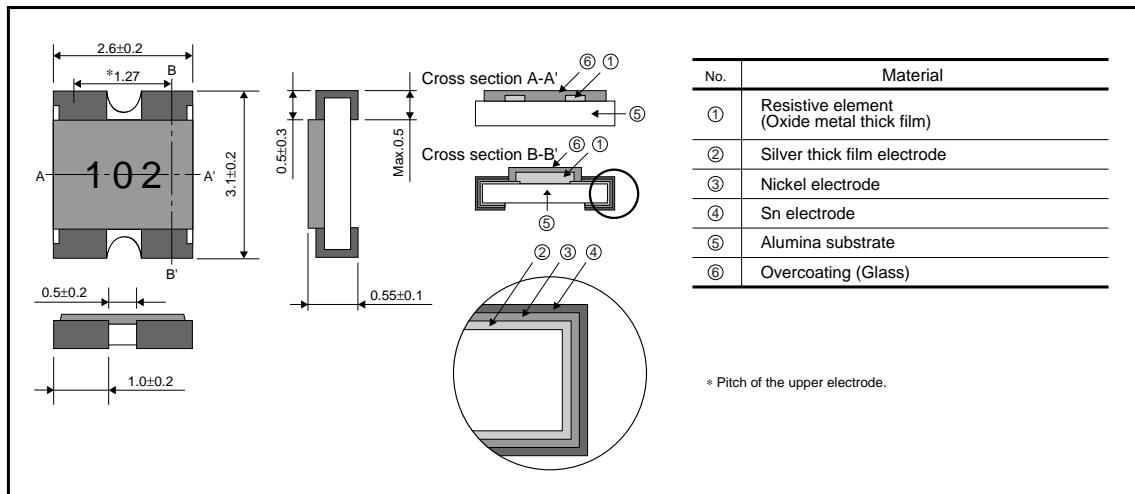
- Before using components in circuits where they will be exposed to transients such as pulse loads (short-duration, high-level loads), be certain to evaluate the component in the mounted state. In addition, the reliability and performance of this component cannot be guaranteed if it is used with a steady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

## ●Characteristics

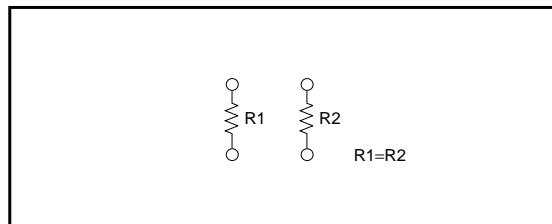
Item	Guaranteed value		Test conditions (JIS C 5201-1)
	Resistor type	Jumper type	
Resistance	J : $\pm 5\%$	Max. 50mΩ	JIS C 5201-1 4.5
Variation of resistance with temperature	See Table.1		JIS C 5201-1 4.8 Measurement : -55 / +25 / +125°C
Overload	$\pm (2.0\%+0.1\Omega)$	Max. 50mΩ	JIS C 5201-1 4.13 Rated voltage (current) $\times 2.5$ , 2s. Maximum Overload Voltage : 400V
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	$\pm (1.0\%+0.05\Omega)$	Max. 50mΩ 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	$\pm (1.0\%+0.05\Omega)$	Max. 50mΩ	JIS C 5201-1 4.19 Test temp. : -55°C to +125°C 5cyc
Damp heat, steady state	$\pm (3.0\%+0.1\Omega)$	Max. 100mΩ	JIS C 5201-1 4.24 40°C, 93%RH Test time : 1,000h to 1,048h
Endurance at 70°C	$\pm (3.0\%+0.1\Omega)$	Max. 100mΩ	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	$\pm (3.0\%+0.1\Omega)$	Max. 100mΩ	JIS C 5201-1 4.25.3 125°C Test time : 1,000h to 1,048h
Resistance to solvent	$\pm (1.0\%+0.05\Omega)$	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	$\pm (1.0\%+0.05\Omega)$	Max. 50mΩ Without mechanical damage such as breaks.	JIS C 5201-1 4.33

## Resistors

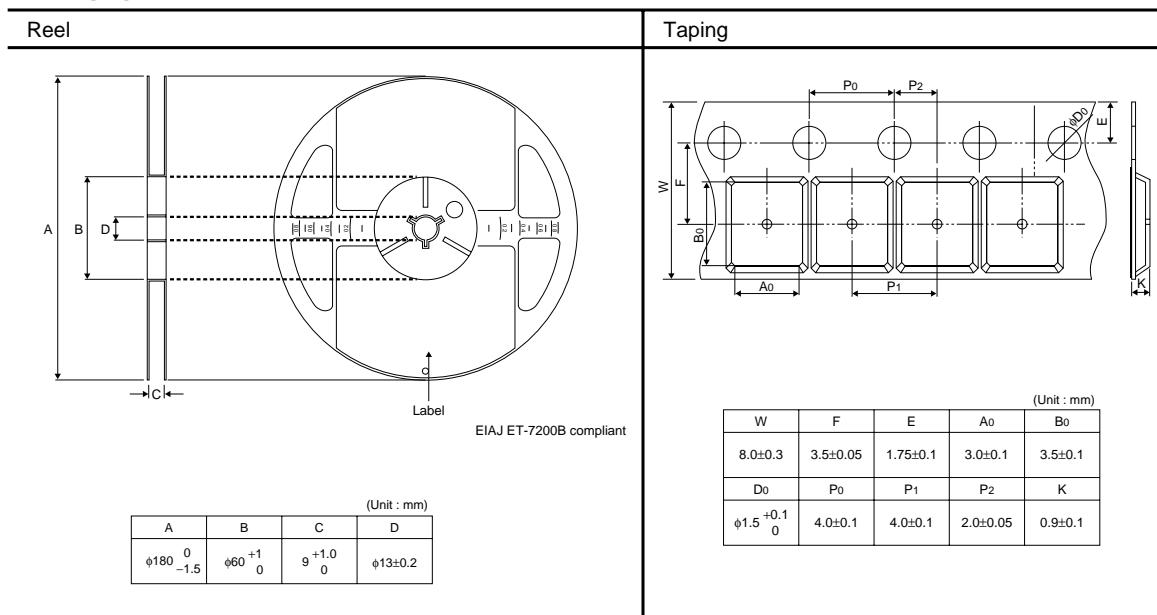
## ●Dimensions (Unit : mm)



## ●Equivalent circuit

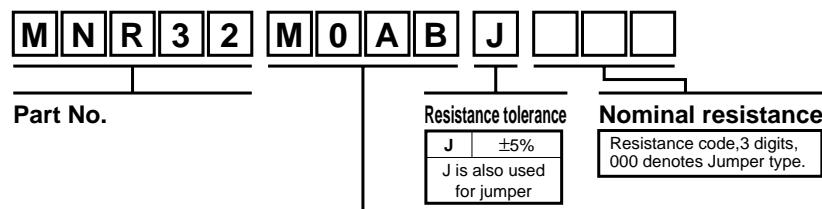


## ●Packaging



## Resistors

## ●Part No. Explanation



## Packaging Specifications Code

Part No.	Code	Resistance tolerance J(±5%)	Packaging specifications	Reel	Basic ordering unit (pcs)
MNR32	J0AB	◎	Embossed tape (4mm Pitch)	φ180mm (7in.)	4,000

Reel (φ180) : JEITA ET-7200B

◎ : Standard product

## Appendix

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### Notes

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