

Fixed Thick Film Low Ohmic Chip Resistors For Current Detection

UCR18 (3216(1206) size: 1/2W)

Features

- 1) Chip resistors ideal for current detection. (11m Ω to 100m Ω)
- 2) Unique chip and terminal configuration reduces resistance shifting during the mounting process.
- 3) Superior rated power.
- 4) ROHM resistors have approved ISO9001-/ISO/TS 16949- certification

●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	Power must be derated according to the power derating curve in Figure 1 when ambient temperature exceeds 70°C. **Total Comparison of the power derating curve in Figure 1 when ambient temperature exceeds 70°C. **Total Comparison of the power derating curve in Fig. 1 **Total Comparison of the power derating curve in Fig. 1 **Total Comparison of the power derating curve in Fig. 1 **Total Comparison of the power derating curve in Fig. 1 **Total Comparison of the power derating curve in Fig. 1 **Total Comparison of the power derating curve in Fig. 1 **Total Comparison of the power derating curve in Fig. 2 **Total Comparison of the power der	0.5W (1 / 2W) at 70°C	
Rated voltage	The voltage rating is calculated by the following equation.		
Nominal resistance	See Table 1.		
Operating temperature		−55°C to + 155°C	

Table 1

Resistance range (Ω)	Resistance tolerance	Special specification	Resistance temperature coefficient (ppm/°C)
0.011 to 0.018 (E24)			0 to 350
0.020 to 0.039 (E24)	F (±1%)	S	0 to 200
0.043 to 0.091 (E24)	J (±5%)		0 to 150
0.1		L	0 to 150

•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.

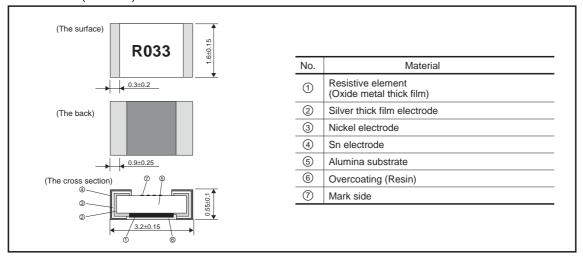
UCR18 Data Sheet

Characteristics

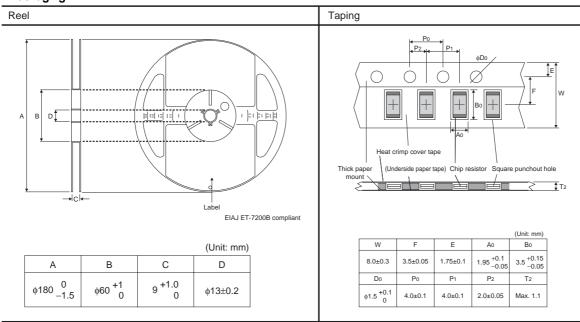
lt a ma	Guaranteed value	Test conditions (JIS C 5201-1) JIS C 5201-1 4.5 Measuring method : Measure under termination Under termination Termina	
Item	Resistor type		
Resistance	F : ±1% J : ±5%		
Variation of resistance with temperature	See <u>Table.1</u>	JIS C 5201-1 4.8 Measurement : -55 / +25 / +125°C	
Overload	\pm (2.0%+0.005 Ω)	JIS C 5201-1 4.13 Rated voltage (current) × 2.5, 2s.	
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%+0.005 Ω) 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%+0.005Ω)	JIS C 5201-1 4.19 Test temp. : –55°C to +125°C 5cyc	
Damp heat, steady state	\pm (3.0%+0.005 Ω)	JIS C 5201-1 4.24 40°C, 93%RH Test time : 56 days	
Endurance at 70°C	$\pm \ (3.0\% + 0.005 \Omega)$	JIS C 5201-1 4.25.1 Rated voltage (current), 70°C 1.5h : ON – 0.5h : OFF Test time : 1,000h	
Endurance	\pm (3.0%+0.005 Ω)	JIS C 5201-1 4.25.3 155°C Test time : 1,000h to 1,048h	
Resistance to solvent	\pm (0.5%+0.005 Ω)	JIS C 5201-1 4.29 23±5°C Solvent : 2-propanol	
Bend strength of the end face plating	Without open.	JIS C 5201-1 4.33	

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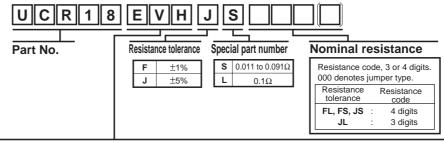
●Dimensions (Unit: mm)



Packaging



● Part No. Explanation



Packaging Specifications Code

Part No. Code	Codo	Resistance tolerance		Packaging specifications	Reel	Danie ardering unit/pac)
	Code	J(±5%)	F(±1%)	Packaging specifications	Reei	Basic ordering unit(pcs)
UCR18	EVH	0	0	Paper tape (4mm Pitch)	φ180mm (7in.)	5,000

Reel (\phi180mm) : Compatible with JEITA standard "EIAJ ET-7200B" (\overline{O}) : Standard product

Notes

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