Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

Fixed Thick Film Low Ohmic Chip Resistors For Current Detection

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

●Features

1) Chip resistors ideal for current detection. (11mΩ to 100mΩ)
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.

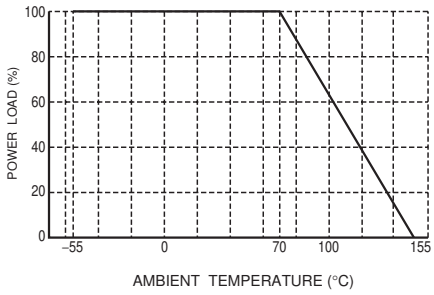
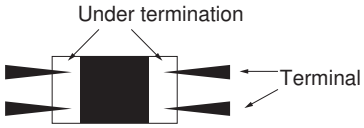
Item	Conditions	Specifications
Rated power	Power must be derated according to the power derating curve in Figure 1 when ambient temperature exceeds 70°C.  Fig.1	0.5W (1 / 2W) at 70°C
Rated voltage	The voltage rating is calculated by the following equation. $E=\sqrt{P\times R}$ E: Rated voltage (V) P: Rated power (W) R: Nominal resistance (Ω)	
Nominal resistance	See Table 1.	
Operating temperature		−55°C to + 155°C

Table 1

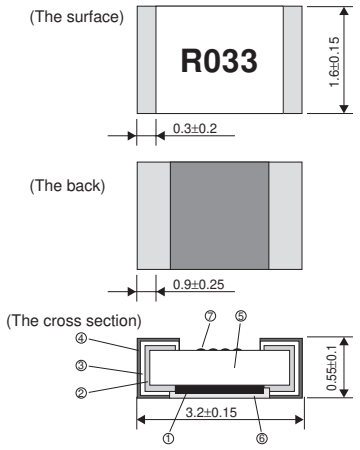
Resistance range (Ω)	Resistance tolerance	Special specification	Resistance temperature coefficient (ppm/°C)
0.011 to 0.018 (E24)	F (±1%) J (±5%)	S	0 to 350
0.020 to 0.039 (E24)			0 to 200
0.043 to 0.091 (E24)			0 to 150
0.1		L	0 to 150

●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.

●Characteristics

Item	Guaranteed value Resistor type	Test conditions (JIS C 5201-1)
Resistance	F : ±1% J : ±5%	JIS C 5201-1 4.5 Measuring method : Measure under termination 
Variation of resistance with temperature	See Table.1	JIS C 5201-1 4.8 Measurement : –55 / +25 / +125°C
Overload	± (2.0%+0.005Ω)	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	± (1.0%+0.005Ω) 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	± (3.0%+0.005Ω)	JIS C 5201-1 4.24 40°C, 93%RH Test time : 56 days
Endurance at 70°C	± (3.0%+0.005Ω)	JIS C 5201-1 4.25.1 Rated voltage (current), 70°C 1.5h : ON – 0.5h : OFF Test time : 1,000h
Endurance	± (3.0%+0.005Ω)	JIS C 5201-1 4.25.3 155°C Test time : 1,000h to 1,048h
Resistance to solvent	± (0.5%+0.005Ω)	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

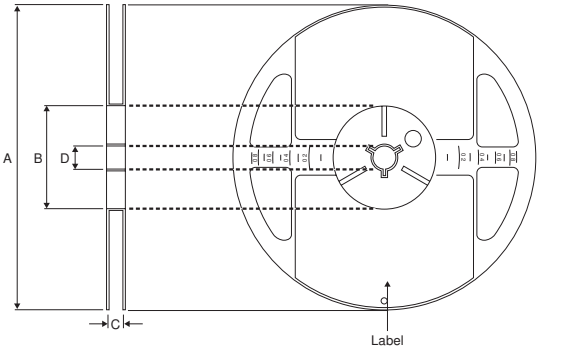
●Dimensions (Unit : mm)



No.	Material
①	Resistive element (Oxide metal thick film)
②	Silver thick film electrode
③	Nickel electrode
④	Sn electrode
⑤	Alumina substrate
⑥	Overcoating (Resin)
⑦	Mark side

●Packaging

Reel

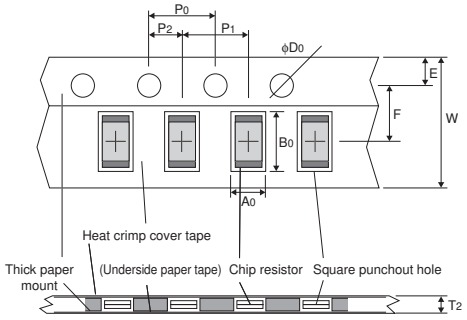


EIAJ ET-7200B compliant

(Unit: mm)

A	B	C	D
$\phi180\ ^{0}_{-1.5}$	$\phi60\ ^{+1}_{0}$	$9\ ^{+1.0}_{0}$	$\phi13\pm0.2$

Taping



(Unit: mm)

W	F	E	A0	B0
8.0±0.3	3.5±0.05	1.75±0.1	$1.95\ ^{+0.1}_{-0.05}$	$3.5\ ^{+0.15}_{-0.05}$
D0	P0	P1	P2	T2
$\phi1.5\ ^{+0.1}_{0}$	4.0±0.1	4.0±0.1	2.0±0.05	Max. 1.1

●Part No. Explanation

U C R 1 8 E V H J S □ □ □ □

Part No.

Resistance tolerance

F	±1%
J	±5%

Special part number

S	0.011 to 0.091Ω
L	0.1Ω

Nominal resistance

Resistance code, 3 or 4 digits.
000 denotes jumper type.

Resistance tolerance		Resistance code
FL, FS, JS	:	4 digits
JL	:	3 digits

Packaging Specifications Code

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

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

Notes

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