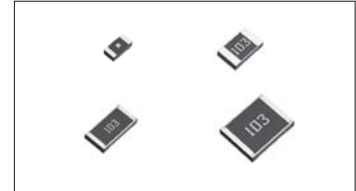


High Voltage Resistance Chip Resistors

KTR Series

●Features

- 1) Twice the rated voltage of conventional products..
- 2) Perfect for use in high voltage circuit. (Camera Flash circuit, etc)
- 3) ROHM resistors have obtained ISO9001 / ISO / TS16949 certification.
- 4) Corresponds to AEC-Q200. (KTR18)



●Products List

Part No.	Size		Rated Power (70°C) (W)	Limiting Element Voltage (V)	Maximum Overload Voltage (V)	Temperature Coefficient (ppm / °C)	Resistance Tolerance (%)	Resistance Range	Series	Operating Temperature Range (°C)
	(mm)	(inch)								
KTR03	1608	0603	0.1	350	500	±200	J(±5%)	1Ω to 10MΩ	E24	-55 to +155
						±100	F(±1%)			
KTR10	2012	0805	0.125	400	800	±200	J(±5%)	1Ω to 10MΩ	E24	-55 to +155
						±100	F(±1%)			
KTR18	3216	1206	0.25	500	1000	±200	J(±5%)	1Ω to 10MΩ	E24	-55 to +155
						±100	F(±1%)			
KTR25	3225	1210	0.33	600	1200	±200	J(±5%)	1Ω to 10MΩ	E24	-55 to +155
						±100	F(±1%)			

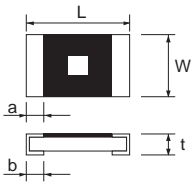
*Design and specifications are subject to change without notice.
Carefully check the specification sheet supplied with the product before using or ordering it.

●Part Number Description

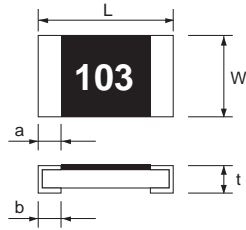
K T R	1 0	E Z P	J	1 0 0																									
Part No. KTR (High Voltage Resistance Chip Resistors)	Size (mm [inch]) 03 (1608 [0603]) 10 (2012 [0805]) 18 (3216 [1206]) 25 (3225 [1210])	Packaging Specifications Code	Resistance Tolerance F (±1%) J (±5%)	Nominal Resistance Resistance code, 3 or 4 digits. 000 denotes jumper type.																									
		<table border="1"> <thead> <tr> <th>Part No.</th> <th>Code</th> <th>Packaging specifications</th> <th>Quantity / Reel</th> </tr> </thead> <tbody> <tr> <td>KTR03</td> <td>EZP</td> <td>Paper tape (4mm Pitch)</td> <td>5,000</td> </tr> <tr> <td>KTR10</td> <td>EZP</td> <td>Paper tape (4mm Pitch)</td> <td>5,000</td> </tr> <tr> <td>KTR18</td> <td>EZP</td> <td>Paper tape (4mm Pitch)</td> <td>5,000</td> </tr> <tr> <td>KTR25</td> <td>JZP</td> <td>Embossed tape (4mm Pitch)</td> <td>4,000</td> </tr> </tbody> </table>	Part No.	Code	Packaging specifications	Quantity / Reel	KTR03	EZP	Paper tape (4mm Pitch)	5,000	KTR10	EZP	Paper tape (4mm Pitch)	5,000	KTR18	EZP	Paper tape (4mm Pitch)	5,000	KTR25	JZP	Embossed tape (4mm Pitch)	4,000	<table border="1"> <thead> <tr> <th>Resistance tolerance</th> <th>Resistance code</th> </tr> </thead> <tbody> <tr> <td>F</td> <td>: 4 digits</td> </tr> <tr> <td>J</td> <td>: 3 digits</td> </tr> </tbody> </table>	Resistance tolerance	Resistance code	F	: 4 digits	J	: 3 digits
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F	: 4 digits																												
J	: 3 digits																												
				<p>Ex.)</p> <p>1Ω = 1R00 (±1%) 1R0 (±5%)</p> <p>10Ω = 10R0 (±1%) 100 (±5%)</p> <p>1MΩ = 1004 (±1%) 105 (±5%)</p>																									

●Chip Resistor Dimensions and Markings

■ KTR03



■ KTR10 / 18 / 25



<Marking method>

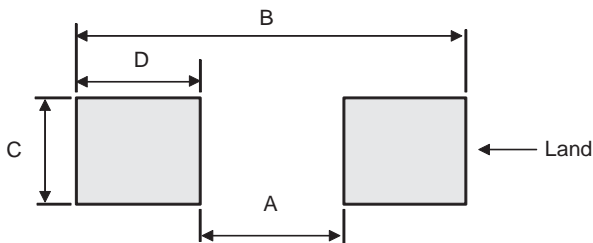
There are three or four digits used for the calculation number according to IEC code and "R" is used for the decimal point.

(Unit : mm)

Part No.	(mm)	(inch)	L	W	t	a	b	Marking existence
KTR03	1608	0603	1.6±0.1	0.8±0.1	0.45±0.1	0.3±0.2	0.3±0.2	No *
KTR10	2012	0805	2.0±0.1	1.25±0.1	0.55±0.1	0.3±0.2	0.4±0.2	Yes
KTR18	3216	1206	3.2±0.15	1.6±0.15	0.55±0.1	0.3±0.25	0.5±0.25	Yes
KTR25	3225	1210	3.2±0.15	2.5±0.15	0.55±0.15	0.3±0.25	0.5±0.25	Yes

*Only with square mark

●Land pattern Example



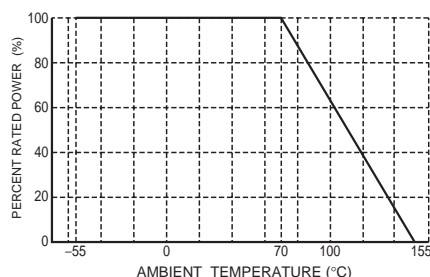
(Unit : mm)

Dimensions Part No.	A	B	C	D
KTR03	1.0	2.0	0.8	0.5
KTR10	1.2	2.6	1.15	0.7
KTR18	2.2	4.0	1.5	0.9
KTR25	2.2	4.0	2.3	0.9

●Derating Curve

When the ambient temperature exceeds 70°C, power dissipation must be adjusted according to the derating curves below.

■ KTR03 / 10 / 18 / 25



●Characteristics

Test Items	Guaranteed Value	Test Conditions
	Resistor Type	
Resistance	See P.1	20°C
Variation of resistance with temperature	See P.1	Measurement : +20 / -55 / +20 / +125°C
Overload	$\pm (2.0\%+0.1\Omega)$	Rated voltage (current) $\times 2.5$, 2s Maximum overload voltage
Solderability	A new uniform coating of minimum of 95% of the surface being immersed and no soldering damage.	Rosin-Ethanol : 25% (Weight) Soldering condition : $235\pm 5^\circ\text{C}$ Duration of immersion : $2.0\pm 0.5\text{s}$
Resistance to soldering heat	$\pm (1.0\%+0.05\Omega)$ No remarkable abnormality on the appearance.	Soldering condition : $260\pm 5^\circ\text{C}$ Duration of immersion : $10\pm 1\text{s}$
Rapid change of temperature	$\pm (1.0\%+0.05\Omega)$	Test temp. : -55°C to $+125^\circ\text{C}$ 5cycle
Damp heat, steady state	$\pm (3.0\%+0.1\Omega)$	40°C , 93%RH (Relative Humidity) Test time : 1,000h to 1,048h
Endurance at 70°C	$\pm (3.0\%+0.1\Omega)$	70°C Rated voltage (current) 1.5h : ON – 0.5h : OFF Test time : 1,000h to 1,048h
Endurance	$\pm (3.0\%+0.1\Omega)$	155°C Test time : 1,000h to 1,048h
Resistance to solvent	$\pm (1.0\%+0.05\Omega)$	$23\pm 5^\circ\text{C}$, Immersion cleaning, $5\pm 0.5\text{min}$ Solvent : 2-propanol
Bend strength of the end face plating	$\pm (1.0\%+0.05\Omega)$ Without mechanical damage such as breaks.	—

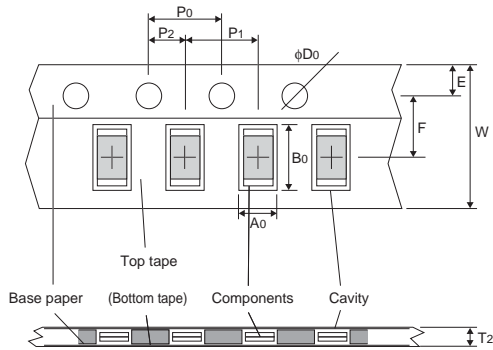
Compliance Standard(s) : IEC60115-8
JISC 5201-8

●Chip weight (typical value)

Parameter	Unit	KTR03	KTR10	KTR18	KTR25
Weight	mg/pc	2.18	5.13	9.62	16.47

●Tape Dimensions

■ Paper Tape

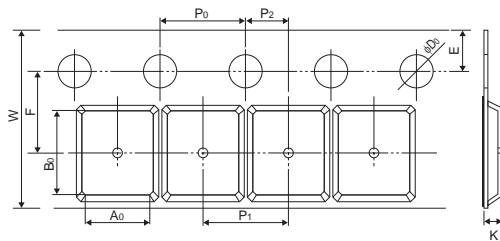


(Unit : mm)

Part No.	W	F	E	A0	B0
KTR03	8.0±0.3	3.5±0.05	1.75±0.1	1.1±0.1	1.9±0.1
KTR10	8.0±0.3	3.5±0.05	1.75±0.1	1.65 ^{+0.2} _{-0.1}	2.4 ^{+0.2} _{-0.1}
KTR18	8.0±0.3	3.5±0.05	1.75±0.1	1.95 ^{+0.1} _{-0.05}	3.5 ^{+0.15} _{-0.05}

Part No.	D0	P0	P1	P2	T2
KTR03	φ1.5 ^{+0.1} ₀	4.0±0.1	4.0±0.1	2.0±0.05	Max 1.1
KTR10	φ1.5 ^{+0.1} ₀	4.0±0.1	4.0±0.1	2.0±0.05	Max 1.1
KTR18	φ1.5 ^{+0.1} ₀	4.0±0.1	4.0±0.1	2.0±0.05	Max 1.1

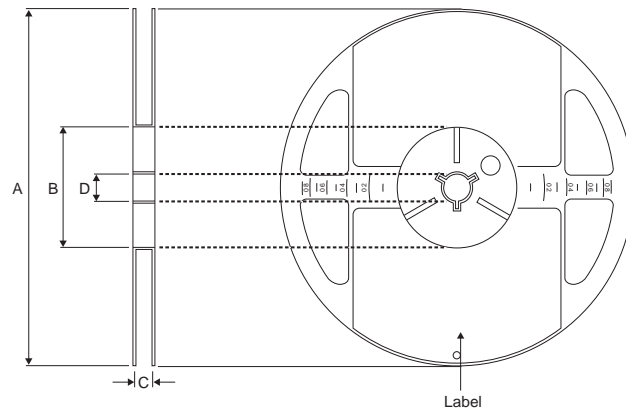
■ Embossed Tape



(Unit : mm)

Part No.	W	F	E	A0	B0
KTR25	8.0±0.3	3.5±0.05	1.75±0.1	3.0±0.1	3.5±0.1
	D0	P0	P1	P2	K
	φ1.5 ^{+0.1} ₀	4.0±0.1	4.0±0.1	2.0±0.05	Max 1.1

●Reel Dimensions



ACCORDING TO EIAJ ET-7200B

(Unit : mm)

Part No.	A	B	C	D
KTR03	φ180 ⁰ _{-1.5}	φ60 ^{+1.0} ₀	9 ^{+1.0} ₀	φ13±0.2
KTR10				
KTR18				
KTR25				

Notes

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