

#### **Feature**

- High density, more than 1 Resistors in one small case.
- Improvement of placement efficiency.
- Tape / Reel packaging is suitable for automatic placement machine.
- Superior solderability.



	2D02	4D02 (RA0805)	4D03 (RA1206 Series)	16P8
Dimension (mm)	0.17±0.1 0.17±0.1 0.17±0.1 0.25±0.1 0.17±0.1 0.25±0.1	0.2±0.15 0.2±0.15 0.2±0.15 0.45±0.1 0.3±0.15 0.3±0.15	0.5±0.15 0.3±0.15 0.3±0.15 0.3±0.15 0.5±0.1	0.45±0.05 0.3±0.05 0.440.15 0.45±0.15 0.45±0.15 0.45±0.15 0.45±0.1
Equivalent Circuit Diagram	R1 R2 R1=R2	8 7 6 5 R1	8 7 6 5 R1 R2 R4 R1=R2=R3=R4	R1 R3 R4 R6 R8 R8 R1=R2=R3=R4=R5=R6=R7=R8

### Performance Specifications

Туре	2D02	4D02	4D03	16P8	
Rated power at 70°C	1/16W	1/16W	1/16W	1/16W	
Max. working voltage	25V	25V	50V	50V	
Max. Overload Voltage	50V	50V	100V	100V	
Dielectric withstanding voltage	100V	100V	300V	300V	
Resistance range	5% (E-24 ):10Ω~1MΩ 5% (E-24 ):10Ω~1MΩ 1% (E-96 ): 10Ω~1MΩ		5% (E-24 ): 1Ω~1MΩ 1% (E-96 ): 1Ω~1MΩ	5% (E-24 ): $1\Omega\sim1M\Omega$ 1% (E-96 ): $1\Omega\sim1M\Omega$	
Temperature coefficient	±200PPM/°C	±200PPM/°C	≥10Ω: ±200PPM/°C <10Ω: ±400PPM/°C	≥10Ω: ±200PPM/°C <10Ω: ±400PPM/°C	
Operating temperature range	-55°C∼+125 °C	-55°C~+125 °C	-55°C~+125 °C	-55°C∼+125 °C	
Resistance Value of Jumper	<50mΩ	$<$ 50m $\Omega$	<50mΩ	$<$ 50m $\Omega$	
Jumper Rated Current	1A	1A	1A	1A	

## Performance Specifications

Short time overload  $\pm (2.0\% \pm 0.1\Omega)$  Max.

Insulation resistance  $\geq$  1,000 Mega Ohm.

Dielectric withstanding voltage No evidence of flashover, mechanical damage, arcing or insulation breakdown.

Terminal bending  $\pm (1.0\% \pm 0.05\Omega)$  Max

Soldering heat Resistance change rate is  $\pm (1.0\% \pm 0.05\Omega)$  Max.

Solderability Min. 95% coverage.

Temperature cycling 
$$\begin{split} \Delta R/R & \leq \pm (1.0\% \ \pm 0.05\Omega) \\ \text{Load life in humidity} & \pm (3.0\% \ \pm 0.1\Omega) \ \text{Max}. \\ \text{Load life} & \pm (3.0\% \ \pm 0.1\Omega) \ \text{Max}. \end{split}$$

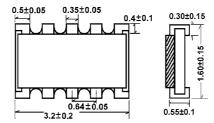
• Please refer to page 4 for the information of Ordering Procedure (Part No.)

#### Feature

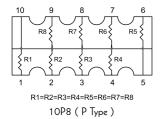
- High density, more Resistors in one SMD case.
- Improvement of placement efficiency.
- Tape / Reel packaging is suitable for automatic placement machine.
- Superior solderability.

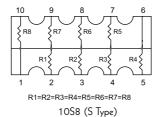
#### Dimension (mm)

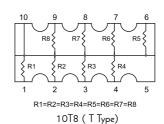


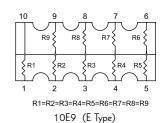


#### Equivalent Circuit Diagram









#### Feature

Rated power at  $70^{\circ}$ C 1/32W (special code "WH" in Part No.), 1/16W

Max. working voltage 25V
Max. Overload Voltage 50V
Dielectric withstanding voltage 50V

Operating temperature range  $~-55^{\circ}\text{C} \sim +125~^{\circ}\text{C}$ 

 $\mbox{Resistance Range} \begin{tabular}{ll} & 5\% & (E-24 \mbox{ series}): $10\Omega{\sim}1M\Omega$ \\ & 1\% & (E-96 \mbox{ series}): $10\Omega{\sim}1M\Omega$ \\ \end{tabular}$ 

 $\begin{array}{ll} \text{Resistance Value of Jumper} & <50\text{m}\Omega \\ \text{Jumper Rated Current} & 0.5A \end{array}$ 

Temperature coefficient  $\pm 200PPM^{\circ}C$ 

Short time overload  $\pm (2.0\% \pm 0.05\Omega)$  Max Insulation resistance  $\geq 1,000$  Mega Ohm.

Dielectric withstanding voltage No evidence of flashover, mechanical damage, arcing or insulation breakdown.

Terminal bending  $\pm (1.0\% \pm 0.05\Omega)$  Max.

Soldering heat Resistance change rate is  $\pm (1.0\% \pm 0.05\Omega)$  Max.

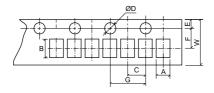
Solderability Min. 95% coverage.

Load life in humidity  $\pm (3.0\% \pm 0.1\Omega)$  Max.

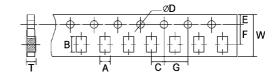
Load life  $\pm (3.0\% \pm 0.1\Omega)$  Max.

• Please refer to page 4 for the information of Ordering Procedure (Part No.)

## Dimension of Paper Taping (mm)



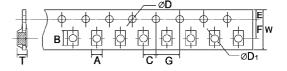
0402 4D02 2D02



4D03 0603 0805 1206 1210 10P8

ТУРЕ	A±0.2	B±0.2	C±0.05	Ø D +0.1	E±0.1	F±0.05	G±0.1	W±0.2	T±0.1	
0402	0.65	1.15	2.0	1.5	1.75	3.5	4.0	8.0	0.45	
TC02	0.03	0.03	1.13	2.0	1.5	1.73	3.3	4.0	8.0	0.43
0603	1.10	1.90	0.0	1.5	4.75	2.5	4.0	0.0	0.47	
TC03	1.10	1.90	2.0	1.5	1.75	3.5	4.0	8.0	0.67	
0805										
TC05	1.65	2.40	2.0	1.5	1.75	3.5	4.0	8.0	0.81	
HV05										
1206										
TC06	2.00	3.60	2.0	1.5	1.75	3.5	4.0	8.0	0.81	
HV06										
1210	2.80	3.50	2.0	1.5	1.75	3.5	4.0	8.0	0.75	
2D02	1.20	1.20	2.0	1.5	1.75	3.5	4.0	8.0	0.45	
4D02	1.20	2.20	2.0	1.5	1.75	3.5	4.0	8.0	0.70	
4D03	2.00	3.60	2.0	1.5	1.75	3.5	4.0	8.0	0.83	
10P8	2.00	3.60	2.0	1.5	1.75	3.5	4.0	8.0	0.85	

## Dimension of Embossed Taping (mm)

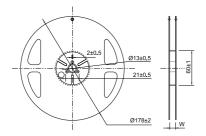


ТУРЕ	A±0.2	B±0.2	C±0.05	Ø D +0.1	Ø D <sub>1</sub> +0.25	E±0.1	F±0.05	G±0.1	W±0.2	T±0.1
2010										
TC10	2.9	5.6	2.0	1.5	1.5	1.75	5.5	4.0	12	1.0
HV10										
2512	2 5	4 7	0.0	1 5	1 5	1 75	5.5	4.0	12	1.0
TC12	3.5	3.5 6.7 2.0	1.5	1.5	1./5	5.5	4.0	12	1.0	
16P8	1.8	4.4	2.0	1.5	1.5	1.75	5.5	4.0	12	1.0

# Packing of Chip, Chip Array & Network

## **UniOhm**

## Dimension of Reel (mm)



ТУРЕ	Taping	Qty./Reel	Tape Width	W±1	
0402	D	10.000	0	10	
TC02	Paper	10,000	8mm		
0603	D	F 000	0	10	
TC03	Paper	5,000pcs	8mm		
0805					
TC05	Paper	5,000pcs	8 <sub>mm</sub>	10	
HV05					
1206				10	
TC06	Paper	5,000pcs	8 <sub>mm</sub>		
HV06					
1210	Paper	5,000pcs	8mm	10	
2010				13.8	
TC10	Embossed	4,000pcs	12mm		
HV10					
2512	Embossed	4,000pcs	12mm	13.8	
TC12	Linoossea	4,000pcs	1 2 mm	13.6	
2D02	Paper	10,000pcs	8mm	10	
4D02	Paper	10,000pcs	8mm	10	
4D03	<b>D03</b> Paper 5,000pcs		8mm	10	
10P8	10P8 Paper 5,000		8mm	10	
16P8	Embossed	4,000pcs	12mm	13.8	

## Dimension of Bulk Cassette (mm)



36(H)×12(W)×110(L)

Bulk Cassette packing available on a case to case basis.