



**Dimensions** inches (mm)

С

d

t

# low resistance, low T.C.R. flat chip resistor

Current detecting resistors for power supplies,

• Low resistance (100m $\Omega$  or under) and high accuracy

High reliability and performance with T.C.R. ±75x10<sup>-6</sup>/K

features

motor circuits, etc.

AEC-Q200 tested

Size

Code

(±1%) for current detection

 Suitable for flow and reflow solderings Products will meet EU RoHS requirements

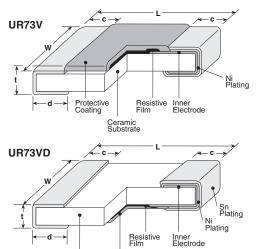
Resistance

Range (Ω)



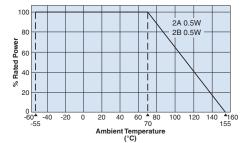


### dimensions and construction



# **Derating Curve**

Ceramic Substrate



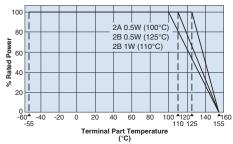
Protective Coating

For resistors operated at an ambient temperature of 70°C or above, the power rating shall be derated in accordance with the above derating curve.

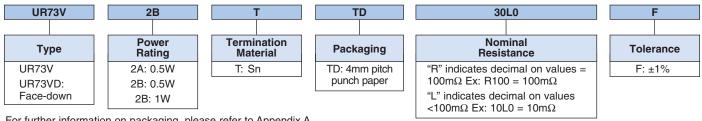
# ordering information

UR73VD 2A	10m~16m	.079±.008	.049±.008 (1.25±0.2)	.016±.008 (0.4±0.2)	.028±.008 (0.7±0.2)	.024±.004 (0.6±0.1)
(0805)	18m~36m	(2.0±0.2)			.024±.008 (0.6±0.2)	
UR73V 2A (0805)	39m~100m	.079±.008 (2.0±0.2)	.049±.008 (1.25±0.2)	.016±.008 (0.4±0.2)	.016±.008 (0.4±0.2)	.024±.004 (0.6±0.1)
	10m~13m	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.016±.012 (0.4±0.3)	.049±.008 (1.25±0.2)	.024±.004 (0.6±0.1)
UR73VD 2B (1206)	15m~16m				.045±.008 (1.15±0.2)	
	18m~20m				.043±.008 (1.1±0.2)	
	22m~27m				.039±.008 (1.0±0.2)	
	30m~33m	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.039±.012 (1.0±0.3)	009	.024±.004 (0.6±0.1)
UR73V 2B (1206)	36m~39m			.035±.012 (0.9±0.3)	.016 <sup>+.008</sup> / <sub>004</sub> (0.4 <sup>+0.2</sup> / <sub>-0.1</sub> )	
	43m~100m			.026±.012 (0.65±0.3)	-0.1	

w



For resistors operated at a terminal part temperature of described for each size or above, the power rating shall be derated in accordance with the above derating curve. Please refer to "Introduction of the derating curve based on the terminal part temperature" in the beginning of our catalog prior use.



For further information on packaging, please refer to Appendix A.

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use. 10/26/20

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# low resistance, low T.C.R. flat chip resistor

# applications and ratings

Part Designation	Power* Rating	Rated Ambient Temperature	Rated Terminal Temperature	T.C.R. (X10⁵/K)	Resistance Range (Ω) E24 & 25m, 50m	Resistance Tolerance	Operating Temperature Range
UR73V 2A	0.5W	70°C	100°C	±75	39m~100m	F: ±1%	-55°C to +155°C
UR73VD 2A	0.5W	70°C	100°C	±75	15m~36m		
				0~+150	12m~13m		
				0~+250	10m~11m		
UR73V 2B	0.5W	70°C	125°C -	±75	33m~75m		
				±100	30m, 82m~100m		
	1W**	70°C	95°C	±75	33m~75m		
				±100	30m, 82m~100m		
UR73VD 2B -	0.5W	70°C	125°C	0~+250	10m~11m	I	
				±75	12m~27m		
UR73VD 2B	1\\/**	1W** 70°C	95°C	0~+250	10m, 11m		
	IVV			±75	12m~27m		

\* Rated voltage =  $\sqrt{Power Rating X Resistance Value}$ 

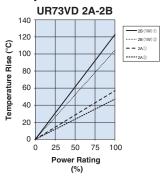
\*\* Please keep the resistor operating according to the derating curve of the terminal part temperature based on the specified power rating.

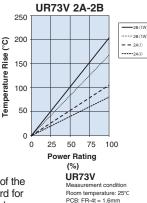
If any questions should arise whether to use the "Rated Ambient Temperature" or the "Rated Terminal Part Temperature," please give priority to the "Rated Terminal Part Temperature." Prior to use and for more details refer to "Introduction of the derating curves on the terminal part temperature" in the beginning of the catalog.

-2B(1W)

# environmental applications

#### **Temperature Rise**





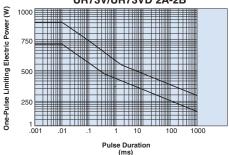
Regarding the temperature rise, the value of the temperature varies per conditions and board for use since the temperature is measured under our measuring conditions.

#### UR73VD Measurement condition Room temperature: 25°C PCB: FR-4t = 1.6mm Cu foil thickness: 35um Cu foil thickness: 35µm 1: Hot spot Termina

1: Hot spot

Te

**One-Pulse Limiting Electric Power** UR73V/UR73VD 2A-2B



The maximum applicable voltage is equal to the max. overload voltage. Please contact factory for resistance characteristics of continuous applied pulse.

#### **Performance Characteristics**

Requirement $\Delta$	R ±(%+0.005Ω)			
Limit Typical		Test Method		
Within specified tolerance	_	25°C		
Within specified T.C.R.	_	+25°C/-55°C and +25°C/+125°C		
±2%	±0.5%	Rated voltage x 2.5 for 5 seconds		
±1%	±0.3%	$260^{\circ}C \pm 5^{\circ}C$ , 10 ± 1 second		
±1%	±0.5%	-55°C (30 minutes), +125°C (30 minutes), 100 cycles		
±2%	±1%	40°C ± 2°C, 90%~95%RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle		
±2%	±1%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle		
±1%	±0.3%	+155°C, 1000 hours		
	Limit Within specified tolerance Within specified T.C.R. ±2% ±1% ±1% ±2% ±2%	LimitTypicalWithin specified tolerance—Within specified T.C.R.—±2%±0.5%±1%±0.3%±1%±0.5%±2%±1%±2%±1%		

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