KOA SPEER ELECTRONICS, INC.

UR73V

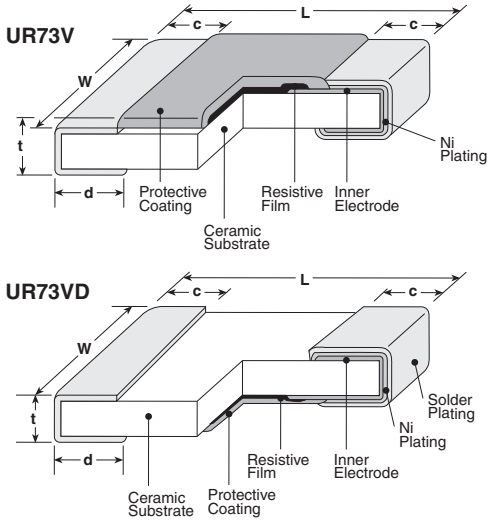
low resistance, low T.C.R. flat chip resistor

EU RoHS COMPLIANT

features

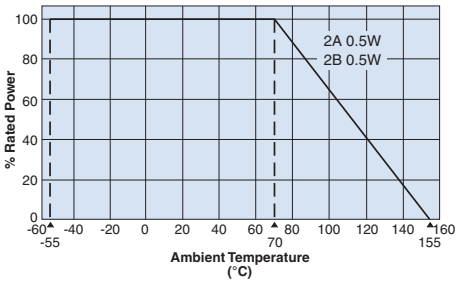
- Current detecting resistors for power supplies, motor circuits, etc.
- Low resistance (100mΩ or under) and high accuracy (±1%) for current detection
- High reliability and performance with T.C.R. ±75x10^{-6}/K
- Suitable for flow and reflow solderings
- Products will meet EU RoHS requirements
- AEC-Q200 qualified

dimensions and construction

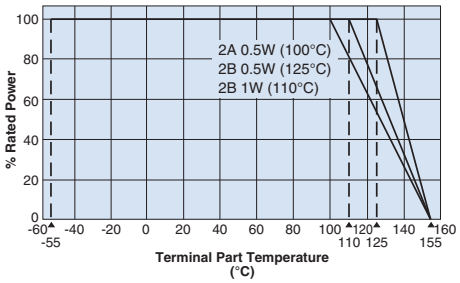


Size Code	Resistance Range (Ω)	Dimensions inches (mm) L	W	c	d	t
UR73VD 2A (0805)	10m~16m	.079±.008 (2.0±0.2)	.049±.008 (1.25±0.2)	.016±.008 (0.4±0.2)	.028±.008 (0.7±0.2)	.024±.004 (0.6±0.1)
	18m~36m				.024±.008 (0.6±0.2)	
UR73V 2A (0805)	39m~100m	.079±.008 (2.0±0.2)	.049±.008 (1.25±0.2)	.016±.008 (0.4±0.2)	.016±.008 (0.4±0.2)	.024±.004 (0.6±0.1)
UR73VD 2B (1206)	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)
	15m~16m				.045±.008 (1.15±0.2)	
	18m~20m				.043±.008 (1.1±0.2)	
	22m~27m				.039±.008 (1.0±0.2)	
UR73V 2B (1206)	30m~33m	.126±.008 (3.2±0.2)	.063±.008 (1.6±0.2)	.039±.012 (1.0±0.3)	.016 +.008 -.004 (0.4 +0.2 -0.1)	.024±.004 (0.6±0.1)
	36m~39m			.035±.012 (0.9±0.3)		
	43m~100m			.026±.012 (0.65±0.3)		

Derating Curve



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.



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.

ordering information

UR73V	2B	T	TD	30L0	F
Type	**Power Rating**	**Termination Material**	**Packaging**	**Nominal Resistance**	**Tolerance**
UR73V UR73VD: Face-down	2A: 0.5W 2B: 0.5W **New** 2B: 1W	T: Sn	TD: 4mm pitch punch paper	"R" indicates decimal on values = 100mΩ Ex: R100 = 100mΩ "L" indicates decimal on values <100mΩ Ex: 10L0 = 10mΩ	F: ±1%

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.

11/25/19

applications and ratings

Part Designation	Power* Rating	Rated Ambient Temperature	Rated Terminal Temperature	T.C.R. (X10^{-6}/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		
	New 1W**	—	95°C	±75	33m~75m		
				±100	30m, 82m~100m		
UR73VD 2B	0.5W	70°C	125°C	0~+250	10m~11m		
				±75	12m~27m		
	New 1W**	—	95°C	0~+250	10m, 11m		
				±75	12m~27m		

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

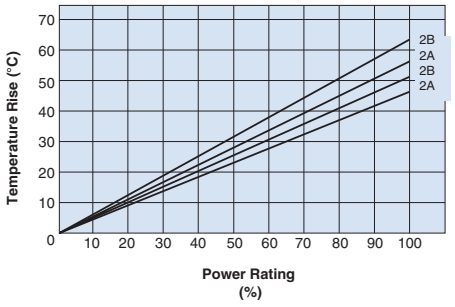
** Please keep the resistor operating according to the derating curve of the terminal part temperature based on the specified power rating.

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.

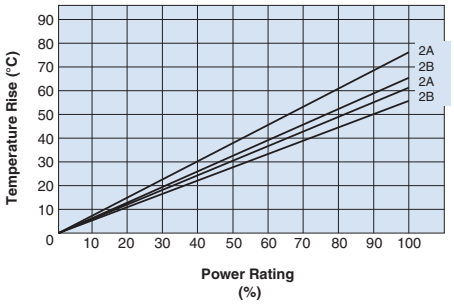
environmental applications

Temperature Rise

UR73VD 2A-2B

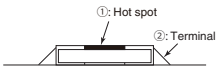


UR73V 2A-2B

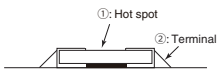


Regarding the temperature rise, the value of the temperature varies per conditions and board for use since the temperature is measured under our measuring conditions.

UR73V
Measurement condition
Room temperature: 25°C
PCB: FR-4t = 1.6mm
Cu foil thickness: 35μm

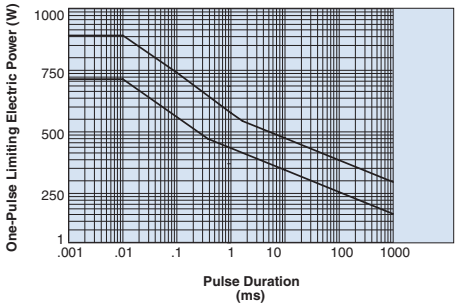


UR73VD
Measurement condition
Room temperature: 25°C
PCB: FR-4t = 1.6mm
Cu foil thickness: 35μm



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

Parameter	Requirement Δ R ±(%+0.005Ω) Limit	Typical	Test Method
Resistance	Within specified tolerance	—	25°C
T.C.R.	Within specified T.C.R.	—	+25°C/-55°C and +25°C/+125°C
Overload (Short time)	±2%	±0.5%	Rated voltage x 2.5 for 5 seconds
Resistance to Solder Heat	±1%	±0.3%	260°C ± 5°C, 10 ± 1 second
Rapid Change of Temperature	±1%	±0.5%	-55°C (30 minutes), +125°C (30 minutes), 100 cycles
Moisture Resistance	±2%	±1%	40°C ± 2°C, 90%~95%RH, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
Endurance at 70°C	±2%	±1%	70°C ± 2°C, 1000 hours, 1.5 hr ON, 0.5 hr OFF cycle
High Temperature Exposure	±1%	±0.3%	+155°C, 1000 hours

Specifications given herein may be changed at any time without prior notice. Please confirm technical specifications before you order and/or use. 12/17/19

Mouser Electronics

Authorized Distributor

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KOA Speer:

UR73V2BTTD50L0F UR73VD2BTTD10L0F UR73VD2BTTD15L0F UR73VD2BTTD20L0F UR73VD2BTTD25L0F UR73V2BTTD30L0F UR73V2BTTD75L0F UR73V2BTTDR100F UR73VD2ATTD15L0F UR73V2ATTDR100F UR73V2ATTD43L0F UR73V2ATTD75L0F UR73VD2ATTD10L0F UR73V2ATTD47L0F UR73VD2ATTD16L0F UR73V2ATTD51L0F UR73VD2ATTD12L0F UR73V2ATTD68L0F UR73VD2ATTD27L0F UR73VD2ATTD11L0F UR73V2ATTD62L0F UR73V2ATTD56L0F UR73VD2ATTD33L0F UR73V2ATTD50L0F UR73VD2ATTD13L0F UR73V2ATTD39L0F UR73VD2ATTD25L0F UR73VD2ATTD20L0F UR73V2ATTD82L0F UR73V2ATTD91L0F UR73VD2ATTD22L0F UR73VD2ATTD30L0F UR73VD2ATTD18L0F UR73VD2ATTD24L0F UR73VD2ATTD36L0F