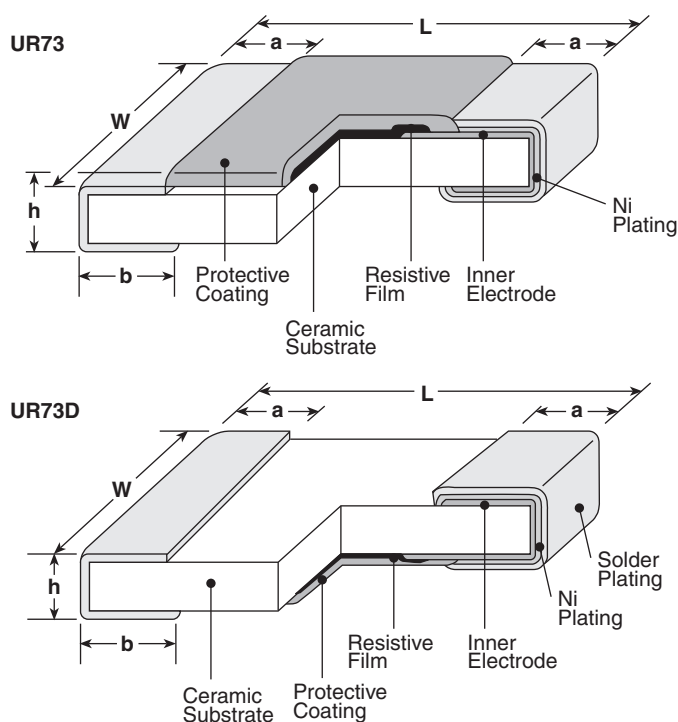


## features

- Very low resistance, high precision reliability
- Suitable for reflow and flow soldering
- Utilization of thick film
- Low T.C.R. achieved ( $\pm 100$  ppm/ $^{\circ}$ C)
- Marking: Indigo body color with white marking
- Products with lead-free terminations meet EU RoHS requirements

## dimensions and construction



Size Code	Resistance Range	Dimensions inches (mm)				
		L	W	h	a	b
D1E	24m ~ 100m	.039 $\begin{smallmatrix} +.004 \\ -.002 \end{smallmatrix}$ (1.0 $\begin{smallmatrix} +0.1 \\ -0.05 \end{smallmatrix}$ )	.020 $\begin{smallmatrix} +.004 \\ -.002 \end{smallmatrix}$ (0.5 $\begin{smallmatrix} +0.1 \\ -0.05 \end{smallmatrix}$ )	.016 $\pm$ .002 (0.4 $\pm$ 0.05)	.010 $\pm$ .004 (0.25 $\pm$ 0.1)	.012 $\pm$ .004 (0.3 $\pm$ 0.1)
D1J	10m ~ 27m	.063 $\pm$ .008 (1.6 $\pm$ 0.2)	.031 $\begin{smallmatrix} +.005 \\ -.004 \end{smallmatrix}$ (0.8 $\begin{smallmatrix} +0.15 \\ -.1 \end{smallmatrix}$ )	.02 $\pm$ .004 (0.5 $\pm$ 0.1)	.014 $\pm$ .004 (0.35 $\pm$ 0.1)	.022 $\pm$ .004 (0.55 $\pm$ 0.1)
	30m ~ 100m					.014 $\pm$ .004 (0.35 $\pm$ 0.1)
D2A	10m ~ 16m	.079 $\pm$ .008 (2.0 $\pm$ 0.2)	.049 $\pm$ .008 (1.25 $\pm$ 0.2)	.022 $\pm$ .004 (0.55 $\pm$ 0.1)	.016 $\pm$ .008 (0.4 $\pm$ 0.2)	.024 $\pm$ .008 (0.6 $\pm$ 0.2)
	18m ~ 30m					.02 $\pm$ .008 (0.5 $\pm$ 0.2)
2A	33m ~ 100m	.079 $\pm$ .008 (2.0 $\pm$ 0.2)	.049 $\pm$ .008 (1.25 $\pm$ 0.2)	.02 $\pm$ .004 (0.55 $\pm$ 0.1)	.016 $\pm$ .008 (0.4 $\pm$ 0.2)	.012 $\begin{smallmatrix} +.008 \\ -.004 \end{smallmatrix}$ (0.3 $\begin{smallmatrix} +0.2 \\ -.1 \end{smallmatrix}$ )
D2B	10m ~ 16m	.126 $\pm$ .008 (3.2 $\pm$ 0.2)	.063 $\pm$ .008 (1.6 $\pm$ 0.2)	.024 $\pm$ .004 (0.6 $\pm$ 0.1)	.020 $\pm$ .008 (0.5 $\pm$ 0.2)	.039 $\pm$ .008 (1.0 $\pm$ 0.2)
	18m ~ 27m					.031 $\pm$ .008 (0.8 $\pm$ 0.2)
2B	30m ~ 100m	.126 $\pm$ .008 (3.2 $\pm$ 0.2)	.063 $\pm$ .008 (1.6 $\pm$ 0.2)	.024 $\pm$ .004 (0.6 $\pm$ 0.1)	.020 $\pm$ .012 (0.5 $\pm$ 0.3)	.016 $\begin{smallmatrix} +.008 \\ -.004 \end{smallmatrix}$ (0.4 $\begin{smallmatrix} +0.2 \\ -.1 \end{smallmatrix}$ )
D2H	10m ~ 30m	.197 $\pm$ .008 (5.0 $\pm$ 0.2)	.098 $\pm$ .008 (2.5 $\pm$ 0.2)	.026 $\pm$ .004 (0.65 $\pm$ 0.1)	.026 $\pm$ .012 (0.65 $\pm$ 0.3)	.063 $\pm$ .012 (1.6 $\pm$ 0.3)
	33m ~ 100m					.026 $\pm$ .012 (0.65 $\pm$ 0.3)
D3A	10m ~ 30m	.248 $\pm$ .008 (6.3 $\pm$ 0.2)	.122 $\pm$ .008 (3.1 $\pm$ 0.2)	.024 $\pm$ .004 (0.6 $\pm$ 0.1)	.031 $\pm$ .012 (0.8 $\pm$ 0.3)	.079 $\pm$ .012 (2.0 $\pm$ 0.3)
	33m ~ 100m					.031 $\pm$ .012 (0.8 $\pm$ 0.3)

## ordering information

New Part #	UR73	2A	T	TD	R10	F
Type	UR73 UR73D	Power Rating 1E: 0.125W 1J: 0.2W 2A: 0.25W 2B: 0.5W 2H: 0.75W 3A: 1W	Termination Material T: Sn	Packaging TP: 2mm pitch punch paper (1E) TD: 7" punched paper tape (1J, 2A, 2B) TE: 7" embossed plastic (2H, 3A)	Nominal Resistance All values less than 0.1 $\Omega$ (100m $\Omega$ ) are expressed in m $\Omega$ with "L" as decimal. Ex: 20m $\Omega$ = 20L0	Tolerance F: $\pm 1\%$

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.

12/16/08

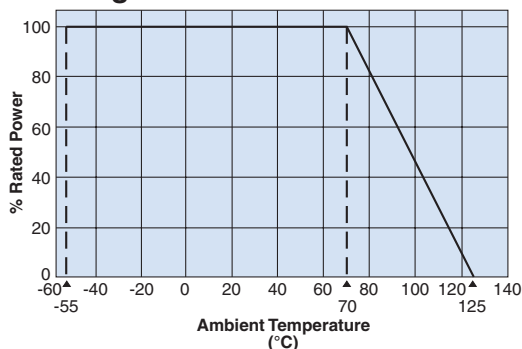
### applications and ratings

	Part Designation	Power Rating	T.C.R. (ppm/°C) Max.	Resistance Range	Absolute Maximum Working Voltage	Maximum Overload Voltage (5 sec. max.)	Operating Temperature Range
				F (±1%) E-24, 25mΩ, 50mΩ			
UNDER DEVELOP.	UR73D1E	1/8W (.125W)	±100	30m - 100mΩ	$\sqrt{P \cdot R}$	$\sqrt{P \cdot R} \times 2.5$	-55°C to +125°C
			±500	24m - 27mΩ			
	UR73D1J	1/5W (.2W)	±100	47m - 100mΩ			
			±200	30m - 43mΩ			
			±300	10m - 27mΩ			
	UR73D2A	1/4W (.25W)	±250	10m - 30mΩ			
	UR732A	1/4W (.25W)	±100	47m - 100mΩ			
			±250	33m - 43mΩ			
	UR73D2B	1/2W (.5W)	±200	10m - 27mΩ			
	UR732B	1/4W (.25W) 1/2W (.5W)*	±100	47m - 100mΩ			
			±200	30m - 43mΩ			
	UR73D2H	3/4W (.75W)	±250	10m - 30mΩ			
			±100	33m - 100mΩ			
	UR73D3A	1W (1W)	±250	10m - 30mΩ			
			±100	33m - 100mΩ			

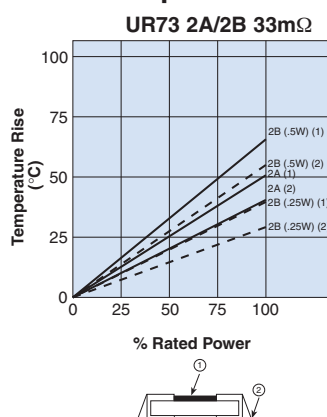
\* Please contact factory for Power Rating

### environmental applications

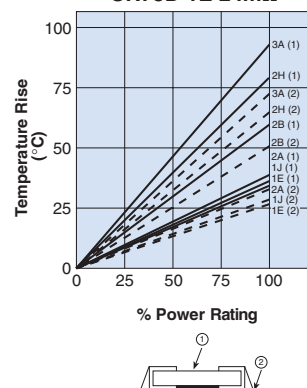
#### Derating Curve



#### Surface Temperature Rise



#### UR73D 1J, 2A, 2B, 2H, 3A 10mΩ UR73D 1E 24mΩ



### Performance Characteristics

Parameter	Requirement Δ R		Test Method
	Limit	Typical	
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 power 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%	+125°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.

1/08/09