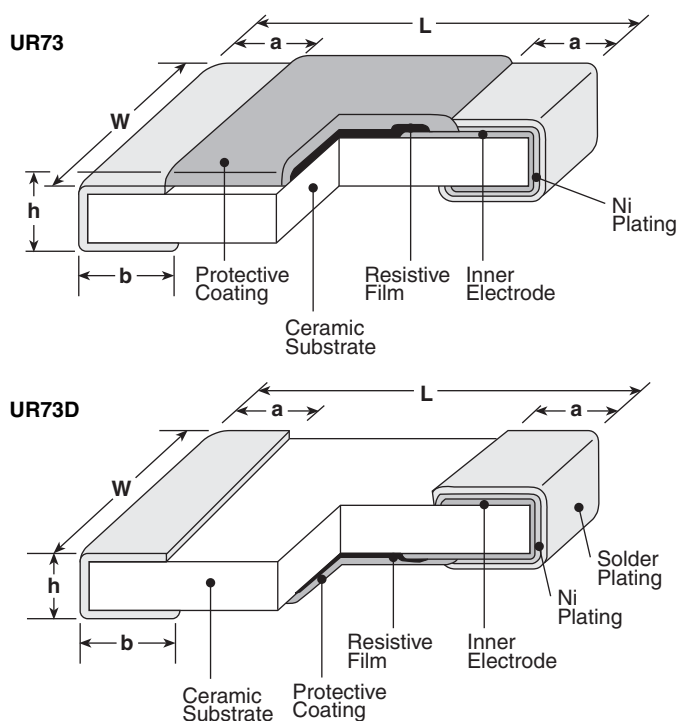


## features

- Very low resistance, high precision reliability
- 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. EU RoHS regulation is not intended for Pb-glass contained in electrode, resistor element and glass.

## dimensions and construction



| Size Code | Resistance Range ( $\Omega$ ) | Dimensions inches (mm)                                                                                                     |                                                                                                                             |                                      |                                      |                                                                                |
|-----------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------------------------------------------------|
|           |                               | L                                                                                                                          | W                                                                                                                           | h                                    | a                                    | b                                                                              |
| D1E       | 24m ~ 100m                    | $.039 \begin{smallmatrix} +.004 \\ -.002 \end{smallmatrix}$<br>(1.0 $\begin{smallmatrix} +.01 \\ -.05 \end{smallmatrix}$ ) | $.020 \begin{smallmatrix} +.004 \\ -.002 \end{smallmatrix}$<br>(0.5 $\begin{smallmatrix} +.01 \\ -.05 \end{smallmatrix}$ )  | $.016 \pm .002$<br>(0.4 $\pm 0.05$ ) | $.010 \pm .004$<br>(0.25 $\pm 0.1$ ) | $.012 \pm .004$<br>(0.3 $\pm 0.1$ )                                            |
| D1J       | 10m ~ 27m                     | $.063 \pm .008$<br>(1.6 $\pm 0.2$ )                                                                                        | $.031 \begin{smallmatrix} +.005 \\ -.004 \end{smallmatrix}$<br>(0.8 $\begin{smallmatrix} +.015 \\ -.01 \end{smallmatrix}$ ) | $.02 \pm .004$<br>(0.5 $\pm 0.1$ )   | $.014 \pm .004$<br>(0.35 $\pm 0.1$ ) | $.022 \pm .004$<br>(0.55 $\pm 0.1$ )                                           |
|           | 30m ~ 100m                    |                                                                                                                            |                                                                                                                             |                                      |                                      | $.014 \pm .004$<br>(0.35 $\pm 0.1$ )                                           |
| D2A       | 10m ~ 16m                     | $.079 \pm .008$<br>(2.0 $\pm 0.2$ )                                                                                        | $.049 \pm .008$<br>(1.25 $\pm 0.2$ )                                                                                        | $.022 \pm .004$<br>(0.55 $\pm 0.1$ ) | $.016 \pm .008$<br>(0.4 $\pm 0.2$ )  | $.024 \pm .008$<br>(0.6 $\pm 0.2$ )                                            |
|           | 18m ~ 30m                     |                                                                                                                            |                                                                                                                             |                                      |                                      | $.02 \pm .008$<br>(0.5 $\pm 0.2$ )                                             |
| 2A        | 33m ~ 100m                    | $.079 \pm .008$<br>(2.0 $\pm 0.2$ )                                                                                        | $.049 \pm .008$<br>(1.25 $\pm 0.2$ )                                                                                        | $.02 \pm .004$<br>(0.55 $\pm 0.1$ )  | $.016 \pm .008$<br>(0.4 $\pm 0.2$ )  | $.012 \pm .008$<br>(0.3 $\begin{smallmatrix} +.02 \\ -.01 \end{smallmatrix}$ ) |
| D2B       | 10m ~ 16m                     | $.126 \pm .008$<br>(3.2 $\pm 0.2$ )                                                                                        | $.063 \pm .008$<br>(1.6 $\pm 0.2$ )                                                                                         | $.024 \pm .004$<br>(0.6 $\pm 0.1$ )  | $.020 \pm .008$<br>(0.5 $\pm 0.2$ )  | $.039 \pm .008$<br>(1.0 $\pm 0.2$ )                                            |
|           | 18m ~ 27m                     |                                                                                                                            |                                                                                                                             |                                      |                                      | $.031 \pm .008$<br>(0.8 $\pm 0.2$ )                                            |
| 2B        | 30m ~ 100m                    | $.126 \pm .008$<br>(3.2 $\pm 0.2$ )                                                                                        | $.063 \pm .008$<br>(1.6 $\pm 0.2$ )                                                                                         | $.024 \pm .004$<br>(0.6 $\pm 0.1$ )  | $.020 \pm .012$<br>(0.5 $\pm 0.3$ )  | $.016 \pm .008$<br>(0.4 $\begin{smallmatrix} +.02 \\ -.01 \end{smallmatrix}$ ) |
| D2H       | 10m ~ 30m                     | $.197 \pm .008$<br>(5.0 $\pm 0.2$ )                                                                                        | $.098 \pm .008$<br>(2.5 $\pm 0.2$ )                                                                                         | $.026 \pm .004$<br>(0.65 $\pm 0.1$ ) | $.026 \pm .012$<br>(0.65 $\pm 0.3$ ) | $.063 \pm .012$<br>(1.6 $\pm 0.3$ )                                            |
|           | 33m ~ 100m                    |                                                                                                                            |                                                                                                                             |                                      |                                      | $.026 \pm .012$<br>(0.65 $\pm 0.3$ )                                           |
| D3A       | 10m ~ 30m                     | $.248 \pm .008$<br>(6.3 $\pm 0.2$ )                                                                                        | $.122 \pm .008$<br>(3.1 $\pm 0.2$ )                                                                                         | $.024 \pm .004$<br>(0.6 $\pm 0.1$ )  | $.031 \pm .012$<br>(0.8 $\pm 0.3$ )  | $.079 \pm .012$<br>(2.0 $\pm 0.3$ )                                            |
|           | 33m ~ 100m                    |                                                                                                                            |                                                                                                                             |                                      |                                      | $.031 \pm .012$<br>(0.8 $\pm 0.3$ )                                            |

## ordering information

| New Part # | UR73          | 2A                                                                                     | T                             | TD                                                                                                                        | R100                                                                                                                                                 | F                         |
|------------|---------------|----------------------------------------------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| Type       | UR73<br>UR73D | Power Rating<br>1E: 0.125W<br>1J: 0.2W<br>2A: 0.25W<br>2B: 0.5W<br>2H: 0.75W<br>3A: 1W | Termination Material<br>T: Sn | Packaging<br>TP: 2mm pitch punch paper (1E)<br>TD: 7" punched paper tape (1J, 2A, 2B)<br>TE: 7" embossed plastic (2H, 3A) | Nominal Resistance<br>All values less than 0.1 $\Omega$ (100m $\Omega$ ) are expressed in m $\Omega$ with "L" as decimal.<br>Ex: 20m $\Omega$ = 20L0 | Tolerance<br>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.

1/10/11

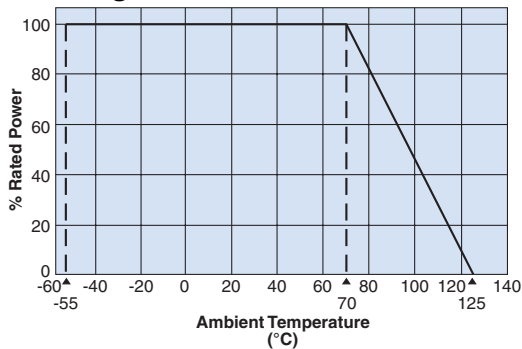
### applications and ratings

| 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 |                                  |                                        |                             |
| UR73D1E          | 1/8W (.125W)  | ±100                 | 30mΩ - 100mΩ             | $\sqrt{P \cdot R}$               | $\sqrt{P \cdot R} \times 2.5$          | -55°C to +125°C             |
|                  |               | ±500                 | 24mΩ - 27mΩ              |                                  |                                        |                             |
| UR73D1J          | 1/5W (.2W)    | ±100                 | 47mΩ - 100mΩ             |                                  |                                        |                             |
|                  |               | ±200                 | 30mΩ - 43mΩ              |                                  |                                        |                             |
|                  |               | ±300                 | 10mΩ - 27mΩ              |                                  |                                        |                             |
| UR73D2A          | 1/4W (.25W)   | ±250                 | 10mΩ - 30mΩ              |                                  |                                        |                             |
| UR732A           | 1/4W (.25W)   | ±100                 | 47mΩ - 100mΩ             |                                  |                                        |                             |
|                  |               | ±250                 | 33mΩ - 43mΩ              |                                  |                                        |                             |
| UR73D2B          | 1/2W (.5W)    | ±200                 | 10mΩ - 27mΩ              |                                  |                                        |                             |
| UR732B           | 1/2W (.5W)    | ±100                 | 47mΩ - 100mΩ             |                                  |                                        |                             |
|                  |               | ±200                 | 30mΩ - 43mΩ              |                                  |                                        |                             |
| UR73D2H          | 3/4W (.75W)   | ±250                 | 10mΩ - 30mΩ              |                                  |                                        |                             |
|                  |               | ±100                 | 33mΩ - 100mΩ             |                                  |                                        |                             |
| UR73D3A          | 1W (1W)       | ±250                 | 10mΩ - 30mΩ              |                                  |                                        |                             |
|                  |               | ±100                 | 33mΩ - 100mΩ             |                                  |                                        |                             |

\* Power rating is guaranteed by the Temperature Rise data shown below

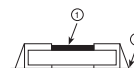
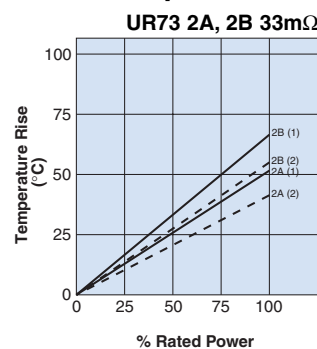
### environmental applications

#### Derating Curve

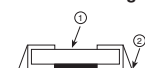
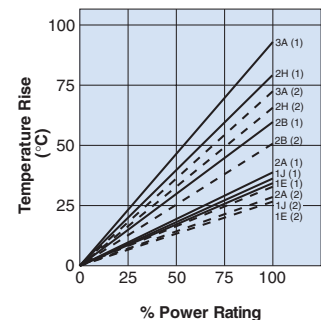


For resistors operated at an ambient temperature of 70°C or above, a power rating shall be derated in accordance with the above derating curve.

#### Surface Temperature Rise



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



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.

### Performance Characteristics

| Parameter                   | Requirement $\Delta R$ (±0.005%) |         | 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.

12/17/12

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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