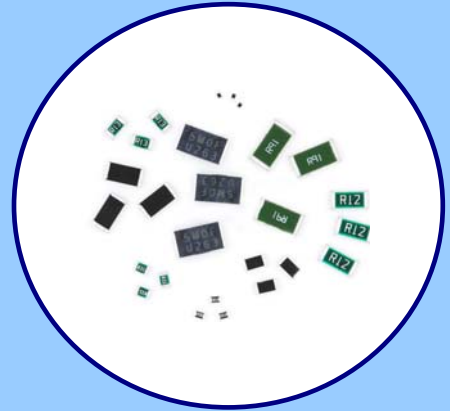
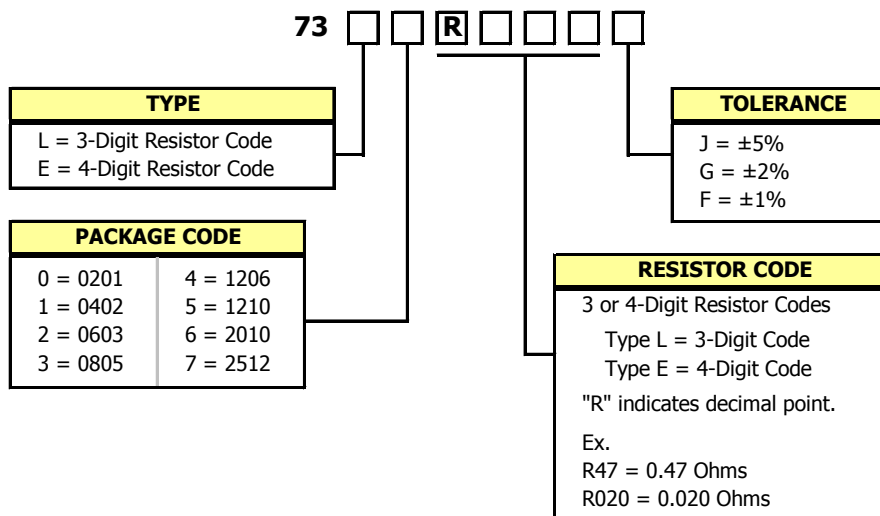


## FEATURES

- **Very Low Resistance**
- **Suitable for Current Limiting, Current Detection, Motor Control, Power Supply and Hard Disk Drives**
- **High Precision and Excellent Accuracy for Current Detection**
- Good Electrical Characteristics
- Surface Mount Package
- Nickel Barrier Solder-Coated Pads [e3]
- Reflow capable per JEDEC J-STD-020, 260°C maximum
- Tape and Reel Packaging
- **RoHS Compliant in Accordance with EU Directive 2005/95/EC**
  - Lead-Free Termination Finish
  - Exemption 5 for Pb in glass material and resistor elements



## ORDERING INFORMATION



### Notes:

1. No dashes or spaces to appear in part number.
2. Example Part Numbers:
  - 73L4R10J [1206 pkg., 0.10 Ohms, ±5%]
  - 73L3R51F [0805 pkg., 0.51 Ohms, ±1%]
  - 73E6R056J [2010 pkg., 0.056 Ohms, ±5%]
  - 73E4R068F [1206 pkg., 0.068 Ohms, ±1%]

**Not all performance combinations and resistor values may be available.  
Contact your local CTS Representative or CTS Customer Service for availability.**

## ORDERING INFORMATION

### STANDARD RESISTOR VALUES

Standard Resistance Values (Based on EIA E24 Sequence)

3-Digit Code

**73Lx**

| Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code |
|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
| 0.100Ω         | R10           | 0.180Ω         | R18           | 0.330Ω         | R33           | 0.560Ω         | R56           |
| 0.110Ω         | R11           | 0.200Ω         | R20           | 0.360Ω         | R36           | 0.620Ω         | R62           |
| 0.120Ω         | R12           | 0.220Ω         | R22           | 0.390Ω         | R39           | 0.680Ω         | R68           |
| 0.130Ω         | R13           | 0.240Ω         | R24           | 0.430Ω         | R43           | 0.750Ω         | R75           |
| 0.150Ω         | R15           | 0.270Ω         | R27           | 0.470Ω         | R47           | 0.820Ω         | R82           |
| 0.160Ω         | R16           | 0.300Ω         | R30           | 0.510Ω         | R51           | 0.910Ω         | R91           |

Standard Resistance Values (Based on EIA E24 Sequence)

4-Digit Code

**73Ex**

| Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code |
|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
| 0.050Ω         | R050          | 0.056Ω         | R056          | 0.068Ω         | R068          | 0.082Ω         | R082          |
| 0.051Ω         | R051          | 0.062Ω         | R062          | 0.075Ω         | R075          | 0.091Ω         | R091          |

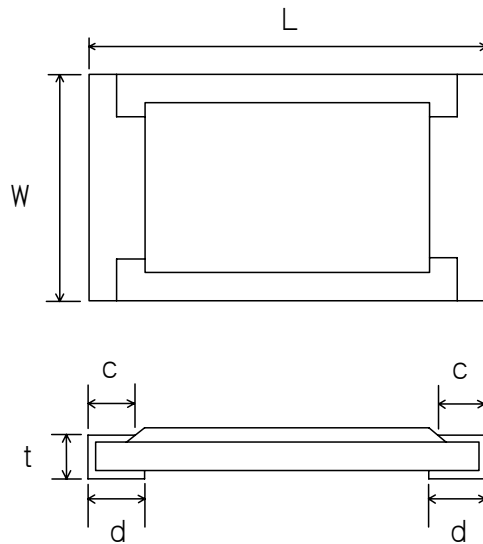
## ELECTRICAL CHARACTERISTICS

| Type | Package Code<br>Inch (mm) | Rated Wattage<br>(Watts) | Tolerance<br>(%)           | Resistance E-24<br>(Ω) | T.C.R<br>(ppm/°C) | Operating Temperature Range |
|------|---------------------------|--------------------------|----------------------------|------------------------|-------------------|-----------------------------|
| 73L0 | 0201 (0603)               | 0.063                    | J = ±5                     | 0.27 - 0.91            | ± 300             | -55°C to +125°C             |
| 73L1 | 0402 (1005)               | 0.100                    | G = ±2<br>J = ±5           | 0.20 - 0.91            | ± 300             | -55°C to +125°C             |
| 73L2 | 0603 (1608)               | 0.100                    | G = ±2<br>J = ±5           | 0.20 - 0.91            | ± 300             | -55°C to +125°C             |
| 73L3 | 0805 (2012)               | 0.125                    | F = ±1                     | 0.20 - 0.91            | ± 200             | -55°C to +125°C             |
|      |                           |                          | G = ±2                     | 0.10 - 0.91            |                   |                             |
|      |                           |                          | J = ±5                     |                        |                   |                             |
| 73L4 | 1206 (3216)               | 0.250                    | F = ±1                     | 0.20 - 0.91            | ± 100             | -55°C to +125°C             |
|      |                           |                          | G = ±2                     | 0.10 - 0.91            | ± 200             |                             |
|      |                           |                          | J = ±5                     |                        |                   |                             |
| 73L5 | 1210 (3225)               | 0.500                    | F = ±1                     | 0.20 - 0.91            | ± 100             | -55°C to +125°C             |
|      |                           |                          | G = ±2                     | 0.10 - 0.91            | ± 200             |                             |
|      |                           |                          | J = ±5                     |                        |                   |                             |
| 73L6 | 2010 (5025)               | 0.750                    | F = ±1                     | 0.20 - 0.91            | ± 100             | -55°C to +125°C             |
|      |                           |                          | G = ±2                     | 0.10 - 0.91            | ± 200             |                             |
|      |                           |                          | J = ±5                     |                        |                   |                             |
| 73L7 | 2512 (6432)               | 1.000                    | F = ±1                     | 0.20 - 0.91            | ± 200             | -55°C to +125°C             |
|      |                           |                          | G = ±2                     |                        | ± 200             |                             |
|      |                           |                          | J = ±5                     | 0.10 - 0.91            |                   |                             |
| 73E3 | 0805 (2012)               | 0.250                    | F = ±1<br>G = ±2<br>J = ±5 | 0.050 - 0.091          | ± 100             | -55°C to +125°C             |
| 73E4 | 1206 (3216)               | 0.500                    | F = ±1<br>G = ±2<br>J = ±5 | 0.050 - 0.091          | ± 100             | -55°C to +125°C             |
| 73E6 | 2010 (5025)               | 1.000                    | F = ±1<br>G = ±2<br>J = ±5 | 0.050 - 0.091          | ± 100             | -55°C to +125°C             |

## MECHANICAL SPECIFICATION

### PACKAGE DRAWING

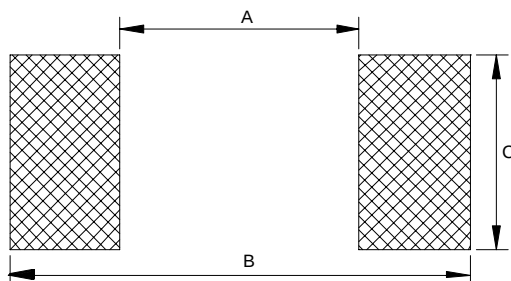
| Type         | Package Code<br>Inch (mm) | Dimensions<br>(mm)                    |                                       |            |            |                                        |
|--------------|---------------------------|---------------------------------------|---------------------------------------|------------|------------|----------------------------------------|
|              |                           | L                                     | W                                     | c          | d          | t                                      |
| 73L0         | 0201 (0603)               | 0.60 ±0.03                            | 0.30 ±0.03                            | 0.12 ±0.05 | 0.15 ±0.05 | 0.23 ±0.03                             |
| 73L1         | 0402 (1005)               | 1.00 ±0.05                            | 0.50 ±0.03                            | 0.20 ±0.10 | 0.25 ±0.10 | 0.35 ±0.05                             |
| 73L2         | 0603 (1608)               | 1.60 ±0.15                            | 0.80 <sup>+0.2</sup> <sub>-0.1</sub>  | 0.25 ±0.20 | 0.25 ±0.20 | 0.50 <sup>+0.15</sup> <sub>-0.05</sub> |
| 73L3<br>73E3 | 0805 (2012)               | 2.00 <sup>+0.2</sup> <sub>-0.1</sub>  | 1.25 <sup>+0.2</sup> <sub>-0.1</sub>  | 0.40 ±0.20 | 0.40 ±0.20 | 0.50 <sup>+0.15</sup> <sub>-0.05</sub> |
| 73L4<br>73E4 | 1206 (3216)               | 3.20 <sup>+0.1</sup> <sub>-0.15</sub> | 1.60 <sup>+0.1</sup> <sub>-0.15</sub> | 0.50 ±0.20 | 0.50 ±0.20 | 0.55 <sup>+0.15</sup> <sub>-0.05</sub> |
| 73L5         | 1210 (3225)               | 3.20 <sup>+0.1</sup> <sub>-0.15</sub> | 2.60 <sup>+0.1</sup> <sub>-0.15</sub> | 0.50 ±0.20 | 0.50 ±0.20 | 0.55 <sup>+0.15</sup> <sub>-0.05</sub> |
| 73L6<br>73E6 | 2010 (5025)               | 5.00 ±0.15                            | 2.50 ±0.15                            | 0.60 ±0.20 | 0.60 ±0.25 | 0.56 ±0.15                             |
| 73L7         | 2512 (6432)               | 6.30 ±0.15                            | 3.20 ±0.15                            | 0.60 ±0.25 | 0.60 ±0.25 | 0.56 ±0.15                             |



### MARKING

| Type | Part Marking |
|------|--------------|
| 73L0 | None         |
| 73L1 |              |
| 73L2 |              |
| 73L3 |              |
| 73L4 |              |
| 73L5 |              |
| 73L6 |              |
| 73L7 |              |
| 73E3 | None         |
| 73E4 |              |
| 73E6 |              |

### RECOMMENDED LAND PATTERN

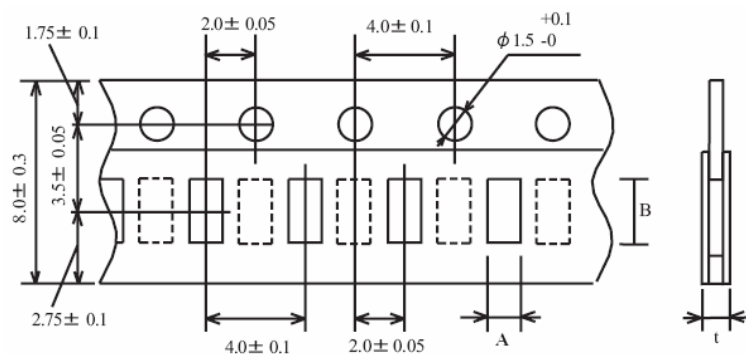


| Type         | Dimensions<br>(mm) |      |      |
|--------------|--------------------|------|------|
|              | A                  | B    | C    |
| 73L0         | 0.36               | 1.00 | 0.40 |
| 73L1         | 0.60               | 2.00 | 0.70 |
| 73L2         | 1.00               | 3.00 | 1.20 |
| 73L3<br>73E3 | 1.20               | 4.00 | 1.65 |
| 73L4<br>73E4 | 2.20               | 5.00 | 2.00 |
| 73L5         | 2.20               | 5.00 | 2.90 |
| 73L6<br>73E6 | 3.20               | 6.60 | 3.00 |
| 73L7         | 4.20               | 8.20 | 3.70 |

## PACKAGING INFORMATION

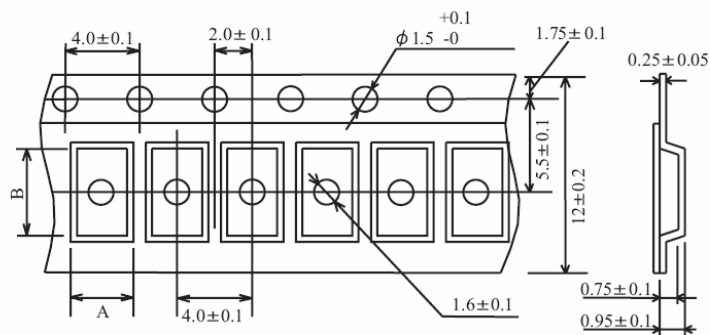
**PAPER TAPE [mm], For Type 73L0 – 73L5, 73E3 and 73E4**

| Type         | A                     | B                     | t          |
|--------------|-----------------------|-----------------------|------------|
| 73L0         | 0.38 ±0.05            | 0.68 ±0.05            | 0.48 ±0.05 |
| 73L1         | 0.70 ±0.08            | 1.20 ±0.08            | 0.50 ±0.10 |
| 73L2         | 1.10 ±0.20            | 1.90 ±0.20            | 0.70 ±0.10 |
| 73L3<br>73E3 | 1.65 ±0.20            | 2.40 ±0.20            | 0.80 ±0.20 |
| 73L4<br>73E4 | 2.00    +1.1<br>-0.15 | 3.75    +0.1<br>-0.15 | 0.80 ±0.20 |
| 73L5         | 2.90 ±0.10            | 3.60 ±0.10            | 0.80 ±0.20 |



### EMBOSSSED TAPE [mm], For Type 73L6, 73L7 and 73E6

| Type         | A          | B          |
|--------------|------------|------------|
| 73L6<br>73E6 | 2.90 ±0.10 | 5.30 ±0.10 |
| 73L7         | 3.40 ±0.10 | 6.60 ±0.10 |



REEL [mm]

| Type         | Package Code<br>Inch (mm) | Qty/Reel | A<br>(mm) |
|--------------|---------------------------|----------|-----------|
| 73L0         | 0201 (0603)               | 15,000   | 11.4 ±1.1 |
| 73L1         | 0402 (1005)               | 10,000   | 11.4 ±1.1 |
| 73L2         | 0603 (1608)               | 5,000    | 11.4 ±1.1 |
| 73L3<br>73E3 | 0805 (2012)               | 5,000    | 11.4 ±1.1 |
| 73L4<br>73E4 | 1206 (3216)               | 5,000    | 11.4 ±1.1 |
| 73L5         | 1210 (3225)               | 5,000    | 11.4 ±1.1 |
| 73L6<br>73E6 | 2010 (5025)               | 4,000    | 15.4 ±1.0 |
| 73L7         | 2512 (6432)               | 4,000    | 15.4 ±1.0 |

