



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 Inch (mm) | Rated Wattage (Watts) | Tolerance (%) | Resistance E-24 (Ω) | T.C.R (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 J = ±5 | 0.20 - 0.91 | ± 300 | -55°C to +125°C |
| 73L2 | 0603 (1608) | 0.100 | G = ±2 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 J = ±5 | 0.10 - 0.91 | | |
| 73L4 | 1206 (3216) | 0.250 | F = ±1 | 0.20 - 0.91 | ± 100 | -55°C to +125°C |
| | | | G = ±2 J = ±5 | 0.10 - 0.91 | | |
| 73L5 | 1210 (3225) | 0.500 | F = ±1 | 0.20 - 0.91 | ± 100 | -55°C to +125°C |
| | | | G = ±2 J = ±5 | 0.10 - 0.91 | | |
| 73L6 | 2010 (5025) | 0.750 | F = ±1 | 0.20 - 0.91 | ± 100 | -55°C to +125°C |
| | | | G = ±2 J = ±5 | 0.10 - 0.91 | | |
| 73L7 | 2512 (6432) | 1.000 | F = ±1 | 0.20 - 0.91 | ± 200 | -55°C to +125°C |
| | | | G = ±2 J = ±5 | 0.10 - 0.91 | | |
| 73E3 | 0805 (2012) | 0.250 | F = ±1 G = ±2 J = ±5 | 0.050 - 0.091 | ± 100 | -55°C to +125°C |
| 73E4 | 1206 (3216) | 0.500 | F = ±1 G = ±2 J = ±5 | 0.050 - 0.091 | ± 100 | -55°C to +125°C |
| 73E6 | 2010 (5025) | 1.000 | F = ±1 G = ±2 J = ±5 | 0.050 - 0.091 | ± 100 | -55°C to +125°C |

MECHANICAL SPECIFICATION

PACKAGE DRAWING

| Type | Package Code Inch (mm) | Dimensions (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 +0.2 -0.1 | 0.25 ±0.20 | 0.25 ±0.20 | 0.50 +0.15 -0.05 |
| 73L3 73E3 | 0805 (2012) | 2.00 +0.2 -0.1 | 1.25 +0.2 -0.1 | 0.40 ±0.20 | 0.40 ±0.20 | 0.50 +0.15 -0.05 |
| 73L4 73E4 | 1206 (3216) | 3.20 +0.1 -0.15 | 1.60 +0.1 -0.15 | 0.50 ±0.20 | 0.50 ±0.20 | 0.55 +0.15 -0.05 |
| 73L5 | 1210 (3225) | 3.20 +0.1 -0.15 | 2.60 +0.1 -0.15 | 0.50 ±0.20 | 0.50 ±0.20 | 0.55 +0.15 -0.05 |
| 73L6 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 | "R" is the decimal point 3 digits (E24): First two numbers are effective numbers in ohms (?). Example: "R20" = 0.20? |
| 73E3 | |
| 73E4 | |
| 73E6 | |

RECOMMENDED LAND PATTERN



| Type | Dimensions (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 73E3 | 1.20 | 4.00 | 1.65 |
| 73L4 73E4 | 2.20 | 5.00 | 2.00 |
| 73L5 | 2.20 | 5.00 | 2.90 |
| 73L6 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 73E3 | 1.65 ±0.20 | 2.40 ±0.20 | 0.80 ±0.20 |
| 73L4 73E4 | 2.00 ^{+1.1} -0.15 | 3.75 ^{+0.1} -0.15 | 0.80 ±0.20 |
| 73L5 | 2.90 ±0.10 | 3.60 ±0.10 | 0.80 ±0.20 |



REEL [mm]

| Type | Package Code Inch (mm) | Qty/Reel | A (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 73E3 | 0805 (2012) | 5,000 | 11.4 ±1.1 |
| 73L4 73E4 | 1206 (3216) | 5,000 | 11.4 ±1.1 |
| 73L5 | 1210 (3225) | 5,000 | 11.4 ±1.1 |
| 73L6 73E6 | 2010 (5025) | 4,000 | 15.4 ±1.0 |
| 73L7 | 2512 (6432) | 4,000 | 15.4 ±1.0 |

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

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



Mouser Electronics

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CTS:

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[73L7R47J](#) [73L4R10J](#) [73L7R10J](#) [73L7R20J](#) [73E6R062J](#) [73E6R056J](#) [73L3R20J](#) [73E6R091J](#) [73L1R47J](#) [73L2R91J](#)
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[73E4R056J](#) [73L3R47J](#) [73L5R30F](#) [73L5R30J](#) [73L3R10G](#) [73L7R33J](#) [73L7R91F](#) [73E4R050F](#) [73L5R22J](#) [73L5R33J](#)
[73L3R51F](#) [73E4R068F](#) [73L7R62F](#) [73L7R68F](#) [73L7R24F](#) [73E6R091F](#) [73L7R27F](#) [73L7R82F](#) [73L7R30F](#)
[73L7R30J](#) [73E6R010J](#) [73E6R056F](#) [73L7R75F](#) [73E6R068F](#) [73L7R22F](#) [73L7R22G](#) [73L2R20G](#) [73L2R30G](#)
[73L5R39F](#) [73E6R075F](#) [73L7R39F](#) [73E6R051F](#) [73L5R43F](#) [73L7R56F](#) [73L7R43F](#) [73E6R062F](#) [73L2R51G](#)
[73L3R30J](#) [73L7R33F](#) [73L7R36F](#) [73L5R20F](#) [73L6R20F](#) [73L7R20F](#) [73E6R082F](#) [73L5R36F](#) [73L5R36J](#) [73L7R47F](#)
[73L7R51F](#) [73L6R33F](#) [73E3R050F](#) [73L4R11J](#) [73L6R43G](#) [73L6R13G](#) [73L5R24G](#) [73E3R051G](#) [73E3R062F](#)
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