

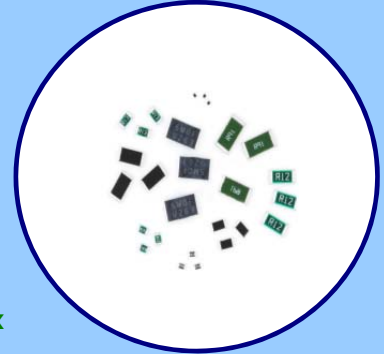
SERIES 73WLX & 73WEX

CURRENT SENSING RESISTORS

WIDE TERMINAL CHIP TYPE

FEATURES

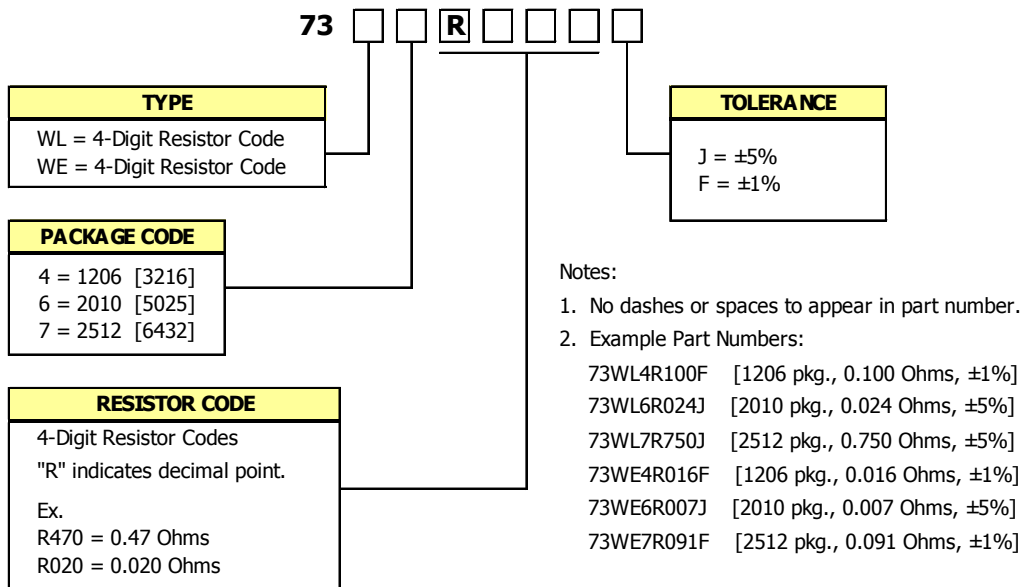
- **Thick Film Construction – Wide Terminal Configuration**
- **Power Rating @ +70°C, Options 0.75 – 2 Watts**
- **Resistance Range, 5 – 910 milliohms**
- **Operating Temperature to +155°C**
- **EIA Standard Package Sizes**
- **Terminal Finish – Tin (e3)**
- **Reflow capable per JEDEC J-STD-020, 260°C maximum**
- **Tape and Reel Packaging**
- **Lead-Free Design – 73WEx**
- **RoHS Compliant in Accordance with EU Directive 2011/65/EU – 73WLx**
 - Lead-Free Termination Finish
 - Exemption 7(c)-I, Electrical and electronic components containing lead [Pb] in glass



APPLICATIONS

Ideal for applications such as current detection and limiting, regulated battery circuits, motor control, power supply, hard disk drives, inverter/converter, industrial equipment and automotive.

ORDERING INFORMATION



**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 E-24 Sequence]
4-Digit Code

73WLx

| Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code |
|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
| 0.010Ω | R010 | 0.030Ω | R030 | 0.082Ω | R082 | 0.240Ω | R240 | 0.680Ω | R680 |
| 0.011Ω | R011 | 0.033Ω | R033 | 0.091Ω | R091 | 0.270Ω | R270 | 0.750Ω | R750 |
| 0.012Ω | R012 | 0.036Ω | R036 | 0.100Ω | R100 | 0.300Ω | R300 | 0.820Ω | R820 |
| 0.013Ω | R013 | 0.039Ω | R039 | 0.110Ω | R110 | 0.330Ω | R330 | 0.910Ω | R910 |
| 0.015Ω | R015 | 0.043Ω | R043 | 0.120Ω | R120 | 0.360Ω | R360 | | |
| 0.016Ω | R016 | 0.047Ω | R047 | 0.130Ω | R130 | 0.390Ω | R390 | | |
| 0.018Ω | R018 | 0.051Ω | R051 | 0.150Ω | R150 | 0.430Ω | R430 | | |
| 0.020Ω | R020 | 0.056Ω | R056 | 0.160Ω | R160 | 0.470Ω | R470 | | |
| 0.022Ω | R022 | 0.062Ω | R062 | 0.180Ω | R180 | 0.510Ω | R510 | | |
| 0.024Ω | R024 | 0.068Ω | R068 | 0.200Ω | R200 | 0.560Ω | R560 | | |
| 0.027Ω | R027 | 0.075Ω | R075 | 0.220Ω | R220 | 0.620Ω | R620 | | |

Standard Resistance Values [Based on EIA E-24 Sequence]
4-Digit Code

73WEx

| Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code | Resistor Value | Resistor Code |
|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
| 0.005Ω | R005 | 0.011Ω | R011 | 0.020Ω | R020 | 0.036Ω | R036 | 0.075Ω | R075 |
| 0.006Ω | R006 | 0.012Ω | R012 | 0.022Ω | R022 | 0.039Ω | R039 | 0.082Ω | R082 |
| 0.007Ω | R007 | 0.013Ω | R013 | 0.024Ω | R024 | 0.043Ω | R043 | 0.091Ω | R091 |
| 0.008Ω | R008 | 0.015Ω | R015 | 0.027Ω | R027 | 0.056Ω | R056 | | |
| 0.009Ω | R009 | 0.016Ω | R016 | 0.030Ω | R030 | 0.062Ω | R062 | | |
| 0.010Ω | R010 | 0.018Ω | R018 | 0.033Ω | R033 | 0.068Ω | R068 | | |

ELECTRICAL CHARACTERISTICS

| Type | Package Code Inch [mm] | Rated Wattage * [Watts] | Tolerance [%] | Resistance E-24 [mΩ] | T.C.R [ppm/°C] | Operating Temperature Range | Working Voltage [max V] | Overload Voltage [max V] |
|-------|---------------------------|----------------------------|------------------|---------------------------------|----------------------|-----------------------------|----------------------------|-----------------------------|
| 73WL4 | 1206 [3216] | 0.75 | F = ±1 | 100 - 910 | ±200 | -55°C to +155°C | 200 | 400 |
| | | | J = ±5 | 10 - 33 36 - 91 100 - 910 | ±500 ±350 ±200 | | | |
| 73WL6 | 2010 [5025] | 1.0 | F = ±1 | 100 - 910 | ±200 | -55°C to +155°C | 200 | 400 |
| | | | J = ±5 | 10 - 33 36 - 91 100 - 910 | ±500 ±350 ±200 | | | |
| 73WL7 | 2512 [6432] | 2.0 | F = ±1 | 100 - 910 | ±200 | -55°C to +155°C | 200 | 400 |
| | | | J = ±5 | 10 - 33 36 - 91 100 - 910 | ±500 ±350 ±200 | | | |

* @ +70°C.

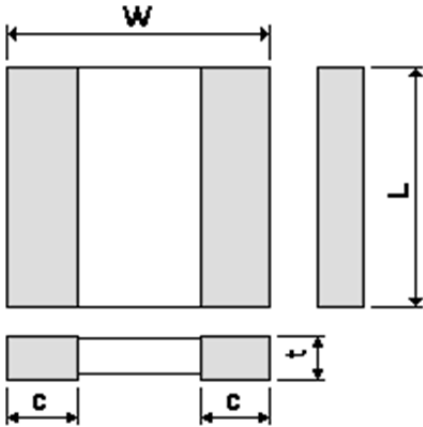
| Type | Package Code Inch [mm] | Rated Wattage * [Watts] | Tolerance [%] | Resistance E-24 [mΩ] | T.C.R [ppm/°C] | Operating Temperature Range |
|-------|---------------------------|----------------------------|------------------|-------------------------|-------------------|-----------------------------|
| 73WE4 | 1206 [3216] | 0.75 | F = ±1 | 10 - 91 | ±100 | -55°C to +155°C |
| | | | J = ±5 | 5 - 91 | | |
| 73WE6 | 2010 [5025] | 1.0 | F = ±1 | 10 - 91 | ±100 | -55°C to +155°C |
| | | | J = ±5 | 5 - 91 | | |
| 73WE7 | 2512 [6432] | 2.0 | F = ±1 | 10 - 91 | ±100 | -55°C to +155°C |
| | | | J = ±5 | 5 - 91 | | |

* @ +70°C.

MECHANICAL SPECIFICATION

PACKAGE DRAWING

| Type | Package Code Inch [mm] | Dimensions [mm] | | | | |
|----------------|---------------------------|-----------------|------------|---------------------|--------------------------|--------------------------|
| | | L | W | t | c | d |
| 73WL4 73WE4 | 1206 [3216] | 3.2 ±0.15 | 1.6 ±0.15 | 0.55 +0.15 -0.05 | 0.30 ±0.20 | 0.50 ±0.20 0.30 ±0.20 |
| 73WL6 73WE6 | 2010 [5025] | 5.00 ±0.20 | 2.50 ±0.20 | 0.56 ±0.15 | 0.50 ±0.20 | 0.60 ±0.20 0.50 ±0.20 |
| 73WL7 73WE7 | 2512 [6432] | 6.30 ±0.20 | 3.20 ±0.20 | 0.56 ±0.15 | 0.50 ±0.20 0.60 ±0.20 | 0.90 ±0.20 0.60 ±0.20 |



NOTES

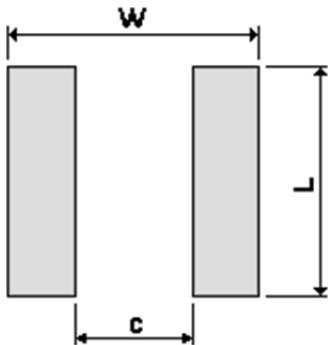
- Terminal:
Base Metal – Silver [Ag] or Copper [Cu] plate.
Barrier Plating - Nickel [Ni].
Finish Plating – Matte Tin [Sn].

RECOMMENDED LAND PATTERN

| Type | Dimensions [mm] | | |
|----------------|-----------------|------|------|
| | C | L | W |
| 73WL4 73WE4 | 0.65 | 3.20 | 2.65 |
| 73WL6 73WE6 | 1.30 | 5.00 | 4.00 |
| 73WL7 73WE7 | 1.45 | 6.40 | 4.85 |

MARKING

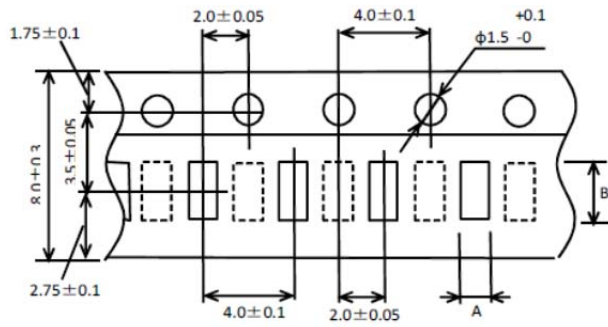
| Type | Part Marking |
|-------------------------|---|
| 73WL4 | Rxxx = "R" is the decimal point and 3 digits [E24] are significant values. See resistor tables for codes. |
| 73WL6 | |
| 73WL7 | |
| 73WE4 73WE6 73WE7 | None |



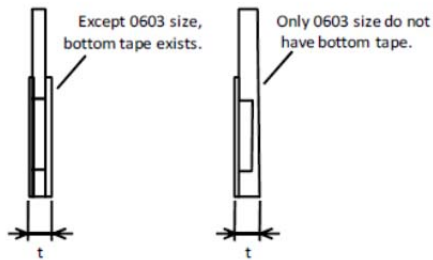
PACKAGING INFORMATION

PAPER TAPE

| Type | [mm] | | |
|-------|------------|------------|------------|
| | A | B | t |
| 73WL4 | 2.00 +0.10 | 3.57 +0.10 | 0.80 ±0.20 |
| 73WE4 | -0.15 | -0.15 | |

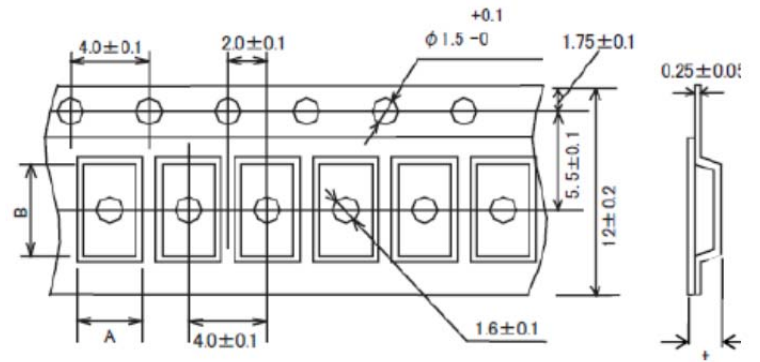


※0603 and 1005 sizes contain parts in sections also and shall be 2 mm pitch.



EMBOSSED TAPE

| Type | [mm] | | |
|-------|------------|------------|------------|
| | A | B | t |
| 73WL6 | 2.90 ±0.10 | 5.30 ±0.10 | 1.00 ±0.10 |
| 73WE6 | | | |
| 73WL7 | 3.40 ±0.10 | 6.60 ±0.10 | 1.00 ±0.10 |
| 73WE7 | | | |



REEL

| Type | Quantity Per Reel | W | M | A | B | C | D |
|-------|-------------------|-----------|-----|----------|-----------|-----------|----|
| 73WL4 | 5,000 | 13.0 ±1.4 | 180 | 2.5 ±0.6 | 13.5 ±0.6 | 21.9 ±0.6 | 60 |
| 73WE4 | | | | | | | |
| 73WL6 | 4,000 | 17.0 ±1.4 | | | | | |
| 73WE6 | | | | | | | |
| 73WL7 | 4,000 | 17.0 ±1.4 | | | | | |
| 73WE7 | | | | | | | |

