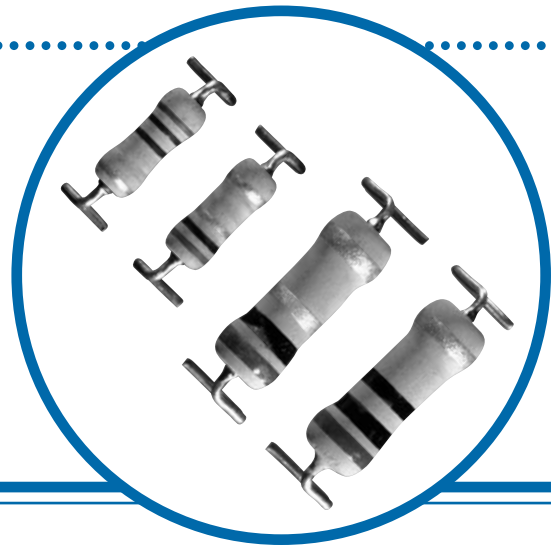


Z-Form SMD Leadform Option

- SMD Power Resistors up to 5W
- Air-cooled form prevents PCB overheating
- Approved axials can be re-used in SMD designs
- Precision, fusible & high voltage also available
- Compatible with vacuum pick & place

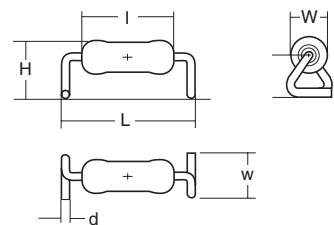


Description

The Z-form option allows conversion of axial through-hole resistors into a surface mount format. This makes available to designers of SMD circuits resistors with characteristics that are simply not available in flat chip or MELF styles. For example, power resistors with ratings up to 5W which dissipate their heat into the air can now be surface mounted - a valuable alternative to an array of several chip resistors which dump heat into the PCB. Precision metal film parts are available that give combinations of power rating and stability that are not available in thin film chips. And several of Welwyn's fusible and high-voltage axials are also now surface mountable, together with parts bearing UL recognition, CECC release or customer approvals.

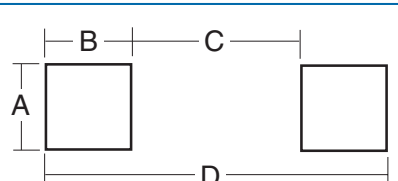
Physical Data

| Dimensions (mm) | | | | | | |
|-----------------|----------|-----------------------|-------|-----------------------|---------|-------|
| Size Code | L | W | H max | l | w | D nom |
| 2W | 13.4±0.2 | See product datasheet | 6.25 | See product datasheet | 4.5±0.6 | 0.8 |
| 3W | 18.7±0.2 | See product datasheet | 6.9 | See product datasheet | 6.5±0.6 | 0.8 |
| 5W | 18.7±0.2 | See product datasheet | 7.9 | See product datasheet | 6.5±0.6 | 0.8 |



Recommended Pad Sizes

| Dimensions (mm) | | | | |
|-----------------|-------|-------|-------|-------|
| Size Code | A min | B min | C max | D min |
| 2W | 5.5 | 2.5 | 10 | 15 |
| 3W | 7.5 | 2.5 | 15 | 20 |
| 5W | 7.5 | 2.5 | 15 | 20 |



Application Notes

Z-form resistors are supplied in reeled blister tape for use on a vacuum pick & place system. A standard flat or MELF nozzle may be used provided the placement speed is consistent with the mass of the component. Note that, as the format is designed to give spacing between the underside of the body and the PCB, these parts are not suitable for adhesive attachment during soldering.



General Note

Welwyn Components reserves the right to make changes in product specification without notice or liability. All information is subject to Welwyn's own data and is considered accurate at time of going to print.

Applicable Products

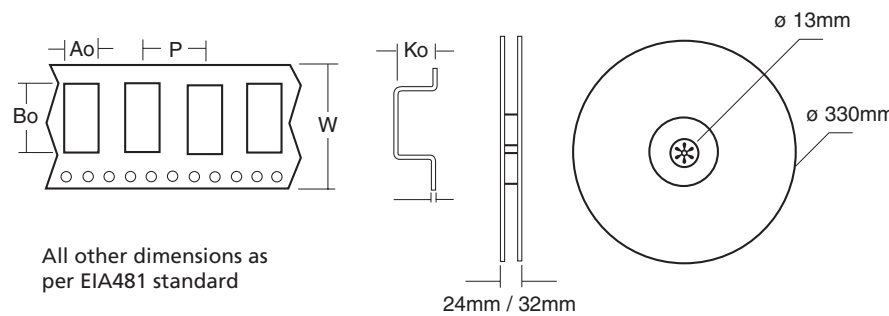
Many product series are available in Z-form SMD option. The respective size codes for each product are listed in the table below.

| Wirewound - flameproof cement | | Size Codes | Metal film - fusible | | Size Codes |
|---------------------------------|---------------------------|----------------|------------------------|-------------------|------------|
| WP-S | WP2S/WP25S/WP3S/WP4S/WP5S | 2W/3W/3W/3W/5W | WFF | WFF1/2 / WFF1 | 2W / 3W |
| W30 | W31 | 3W | FM | FM1/2 / FM1 | 2W / 3W |
| Metal oxide - flameproof cement | | | EMC | EMC2 | 2W |
| WMO-S | WMO1S / WMO2S / WMO3S | 2W / 3W / 3W | Metal film - low power | | |
| | | | MFR | MFR5 | 2W |
| Metal film - flameproof cement | | | RC(P) | RC65(P) / RC70(P) | 2W / 3W |
| MF-S | MF1S / MF2S / MF3S | 2W / 3W / 3W | High voltage | | |
| MFP | MFP2 | 2W | VRW | VRW37 | 2W |
| 2500 | 2504 | 3W | GC | GC65 / GC70 | 2W / 3W |

Other products of similar body size may be available in Z-form - please consult the Applications Engineering team.

Packaging

| Dimensions (mm) | | | | | | | Quantity per reel |
|-----------------|----------------|----------------|----------------|----|----|-----|-------------------|
| Size Code | A ₀ | B ₀ | K ₀ | W | P | T | |
| 2W | 5.3 | 13.9 | 6.3 | 24 | 12 | 0.4 | 750 |
| 3W | 7.3 | 19.2 | 7.1 | 32 | | | 750 |
| 5W | 7.4 | 19.2 | 8.2 | 32 | | | 650 |



All other dimensions as per EIA481 standard

24mm / 32mm

Ordering Details

The Z-form option is normally specified by appending the suffix "Z" to the product type. Examples are given below.

| Axial Through-hole version | Z-form SMD version |
|----------------------------|--------------------|
| WA84-100RJ | WA84Z-100RJ |
| EMC2-10RM | EMC2Z-10RM |
| WMO3S-4K7J | WMO3SZ-4K7J |

The exception to this is for precision resistors, where this letter is also used as a TCR code. In this case the "Z" is embedded in the type code as in the examples below.

| Axial Through-hole version | Z-form SMD version |
|----------------------------|--------------------|
| RC70Y-549RB | RCZ70Y-549RB |
| RC65Z-1K02D | RCZ65Z-1K02D |