

ZI Form

Features

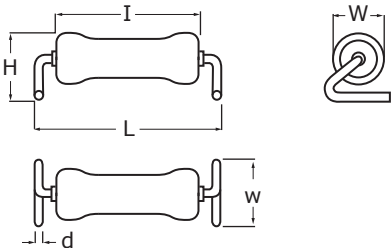
- SMD Power Resistors up to 5W
- Air-cooled form prevents PCB overheating
- Approved axials can be re-used in SMD designs
- Precision, fusible & high voltage also available
- Compatible with vacuum pick & place
- Cost competitive



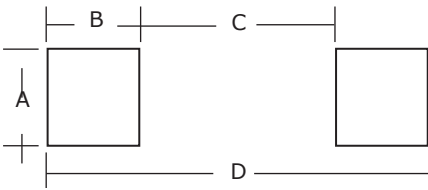
Description

The ZI-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 TT Electronics’ fusible and high-voltage axials are also now surface mountable, together with parts bearing UL recognition, or customer approvals.

Physical Data

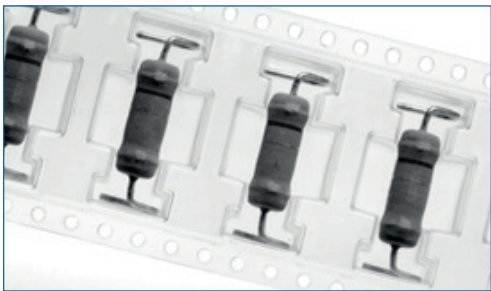
Dimensions (mm)							
Size code	L	W	H max	I	w	D nom	
1	14.8±0.4	See product datasheet	6.5	See product datasheet	6.5±0.8	0.8	
2	21.0±0.4		8.2		6.5±0.8	0.8	
3	18.7±0.4		7.3		6.5±0.8	0.8	
4	21.0±0.4		8.2		6.5±0.8	0.8	

Recommended Pad Sizes

Dimensions (mm)					
Size Code	A min	B min	C max	D min	
1	7.7	2.5	11.5	16.5	
2	7.7	2.5	18	23	
3	7.7	2.5	15.5	20.5	
4	7.7	2.5	18	23	

Application Notes

ZI-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

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

BI Technologies IRC Welwyn

www.ttelectronics.com/resistors

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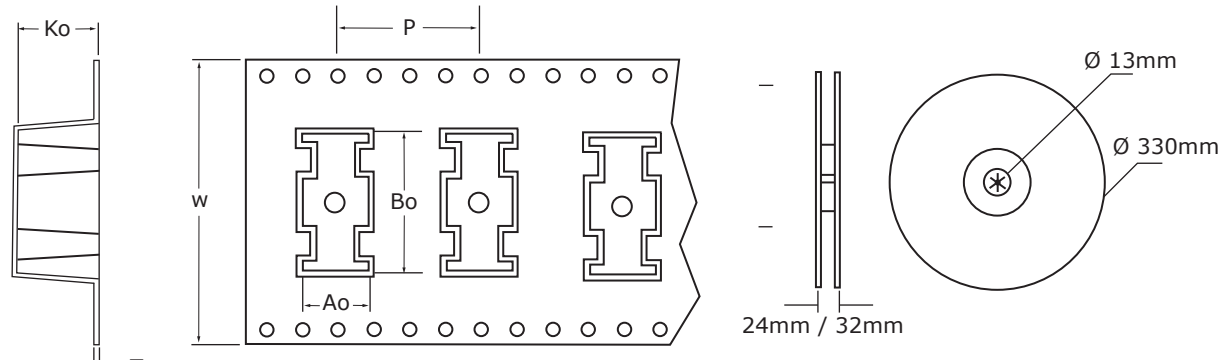
Applicable Products

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

Wirewound – flameproof cement		Size Codes
WA80	WA83 / WA84 / WA85	1 / 2 / 4
WP-S	WP2S / WP3S / WP4S / WP5S	1 / 2 / 3 / 4
W30	W31	3
Wirewound - Fusible UL recognised		
ULW	ULW2 / ULW3 / ULW4 / ULW5	1 / 2 / 3 / 4
WHS-UL	WHS2UL / WHS3UL / WHS5UL	1 / 2 / 4
Wirewound - High Surge		
WHS	WHS2 / WHS3 / WHS5	1 / 2 / 4
Film – Power and Fusible		
MFP	MFP2	1
EMC	EMC2	1
Film – High Voltage		
VRW	VRW37	1

Packaging

Dimensions (mm)							Quantity per reel
Size Code	A ₀	B ₀	K ₀	W	P	T	
1	8	15.25±0.1	6.45±0.1	24.0±0.3	16±0.1	0.4±0.05	600
2	8	21.45±0.1	7.1±0.1	32.0±0.3	16±0.1	0.5±0.05	500
3	8	19.15±0.1	7.1±0.1	32.0±0.3	16±0.1	0.5±0.05	500
4	8	21.45±0.1	8.0±0.1	32.0±0.3	16±0.1	0.5±0.05	450



All other dimensions as per EIA481 standard.

Ordering Procedure

Consult the relevant product datasheet for the standard product part number. The ZI-form option is normally specified by appending the suffix "ZI" to the product type. The packing suffix at the end of the part number is also changed to indicate tape and reel and the quantity. The codes are T06, T05 and T045 for 600, 500 and 450 pieces respectively. Examples are given below.

Size Code	Axial Through-hole version	ZI-form SMD version
1	ULW2-47RJA25	ULW2ZI-4K7JT06
2	WA84-100RJ1	WA84ZI-100RJT05
3	ULW4-47RJA1	ULW4ZI-47RJT05
4	WHS5UL-10RJT075	WHS5ULZI-10RJT045

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