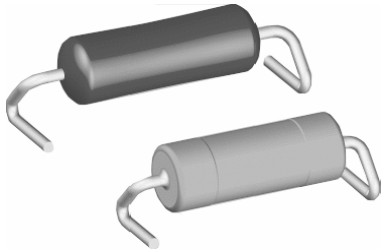


Wirewound Resistors, Surface Mount, Silicone or Cement Coated, High Power



FEATURES

- Low cost, high power (up to 3.75 W)
- All welded construction
- Ideal for pulsing application
- Ceramic core
- Available on tape and reel
- AEC-Q200 qualified available ⁽¹⁾
- Compliant to RoHS Directive 2002/95/EC

Note

⁽¹⁾ Flame retardance test may not be applicable to some resistor technologies.



STANDARD ELECTRICAL SPECIFICATIONS									
GLOBAL MODEL	SIZE	POWER RATING $P_{25^\circ\text{C}}$ W	RESISTANCE RANGE ⁽²⁾ Ω TCR - 10 ... - 80 ppm/K ⁽³⁾ (CLASS 1)	RESISTANCE RANGE ⁽²⁾ Ω TCR 100 ... 180 ppm/K (CLASS 3)	RESISTANCE RANGE Ω TCR ± 50 ppm/ $^\circ\text{C}$	RESISTANCE RANGE Ω TCR ± 30 ppm/ $^\circ\text{C}$	TOLERANCE \pm %	WEIGHT (typical) g	ENCAPS.
WSZ6720	6720	1.8 ⁽⁴⁾	1 to 510	n/a	n/a	n/a	1	0.6	Cement
			0.22 to 510	n/a	n/a	n/a	2		
			0.10 to 510	24 to 3.3K	n/a	n/a	5		
			0.10 to 510	1.8 to 3.3K	n/a	n/a	10		
WSZ7532	7532	3.75	n/a	n/a	n/a	10 to 15K	1, 3	0.7	Silicone
			n/a	n/a	1 to 9.99	10 to 15K	5, 10		

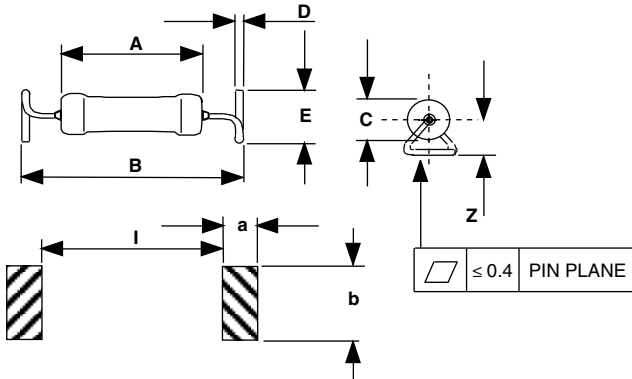
Notes

- ⁽²⁾ Lower TCR or other power range on request. Resistance value to be selected for ± 10 % tolerance from E12 and for ± 5 % from E24.
⁽³⁾ $\leq 1 \Omega \leq 400$ ppm/K.
⁽⁴⁾ Power rating depends on the maximum temperature at the solder point, solder pad dimensions, the component placement density and the substrate material.

GLOBAL PART NUMBER INFORMATION																	
Global Part Numbering example: WSZ672011509KBM000																	
W	S	Z	6	7	2	0	1	1	5	0	9	K	B	M	0	0	0
GLOBAL MODEL WSZ6720	TCR/MATERIAL		VALUE			TOLERANCE CODE			PACKAGING			SPECIAL					
	1 = - 10 ... - 80 ppm/K WM 50 Class 1 3 = 100 ... 180 ppm/K WM 110 Class 3		3 digit value 1 digit multiplier MULTIPLIER 7 = $\times 10^{-3}$ 8 = $\times 10^{-2}$ 9 = $\times 10^{-1}$ 0 = $\times 10^0$ 1 = $\times 10^1$ 2 = $\times 10^2$ 3 = $\times 10^3$			F = ± 1.0 % G = ± 2.0 % J = ± 5.0 % K = ± 10.0 %			BM = Lead (Pb)-free, tape/reel LX = Lead (Pb)-free, bulk			3 digits 000 = Standard					
Historical Part Numbering example: WSZ6720 WM 50 15 Ω 10 % BM																	
WSZ6720	WM 50		15 Ω			10 %			BM								
HISTORICAL MODEL	TCR/MATERIAL		VALUE			TOLERANCE CODE			PACKAGING								
Global Part Numbering example: WSZ75321K000JTA																	
W	S	Z	7	5	3	2	1	K	0	0	0	J	T	A			
GLOBAL MODEL WSZ7532	VALUE		TOLERANCE CODE			PACKAGING			SPECIAL								
	R = Decimal K = Thousand 54R15 = 54.15 Ω 1K325 = 1325 Ω		F = ± 1.0 % G = ± 2.0 % H = ± 3.0 % J = ± 5.0 % K = ± 10 %			EA = Lead (Pb)-free, tape/reel EK = Lead (Pb)-free, bulk TA = Tin/lead, tape/reel BA = Tin/lead, bulk			(Dash number) (Up to 3 digits) From 1 to 999 as applicable								

* Pb containing terminations are not RoHS compliant, exemptions may apply

** Please see document "Vishay Material Category Policy": www.vishay.com/doc?99902

DIMENSIONS


MODEL	DIMENSIONS in millimeters [inches]					
	A _{max.}	B	C _{max.}	D _{nom.}	E	Z
WSZ6720	13.2 [0.512]	17 ± 0.5 [0.670]	4.8 [0.189]	0.8 [0.031]	5 ± 0.5 [0.20 ± 0.02]	3.6 ± 0.5 [0.142 ± 0.02]
WSZ7532	14.27 [0.562]	19.86 [0.782]	4.78 [0.188]	0.813 [0.032]	8.18 [0.322]	6.5 [0.256]

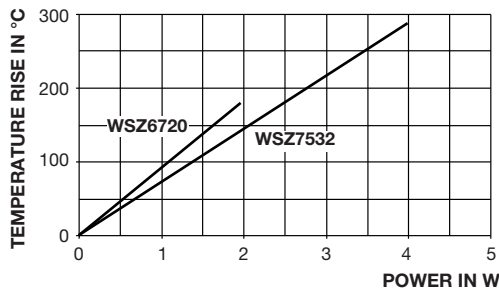
MODEL	SOLDER PAD DIMENSIONS in millimeters [inches]		
	a	b	l
WSZ6720	10 [0.394]	10 [0.394]	14.5 [0.57]
WSZ7532	4.0 [0.157]	9.50 [0.374]	15.05 [0.593]

TECHNICAL SPECIFICATIONS

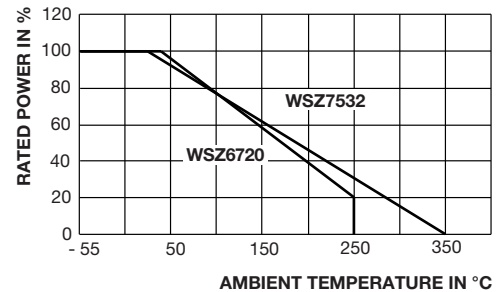
PARAMETER	UNIT	WSZ6720	WSZ7532
Temperature Coefficient	ppm/°C	See Standard Electrical Specifications table	
Operating Temperature Range	°C	- 55 to + 250	- 65 to + 350
Maximum Working Voltage	V	$(P \times R)^{1/2}$	
Terminal Strength	lb	10 minimum	

PERFORMANCE

TEST	CONDITIONS OF TEST	TEST LIMITS	
		WSZ6720	WSZ7532
Temperature Cycling	- 55 °C to + 125 °C, 5 cycles, 15 min at each extreme	± 3 % ΔR	± (2 % + 0.05 Ω) ΔR
High Temperature Exposure	1000 h at + 250 °C	± 3 % ΔR	± (2 % + 0.05 Ω) ΔR
Short Time Overload	5 x rated power for 5 s	± 1 % ΔR	± (2 % + 0.05 Ω) ΔR
Shock, Specified Pulse	100 g's for 6 ms, 10 shocks	± 1 % ΔR	± (2 % + 0.05 Ω) ΔR
Vibration, High Frequency	Frequency varied 10 Hz to 2000 Hz, 20 g peak, 2 directions 6 h each	± 1 % ΔR	± (2 % + 0.05 Ω) ΔR
Load Life	2000 h at rated power, + 25 °C, 1.5 h "ON", 0.5 h "OFF"	± 3 % ΔR	± (3 % + 0.05 Ω) ΔR
Resistance to Soldering Heat	+ 260 °C solder, 10 s to 12 s dwell, 25 mm/s emergence	± 1 % ΔR	± (0.5 % + 0.05 Ω) ΔR

TEMPERATURE RISE


Measurement based on recommended solder pads

DERATING

PACKAGING

MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSZ6720	24 mm	330 mm	1250	BM
WSZ7532 ⁽¹⁾	32 mm/embossed plastic	330 mm/13"	350	EA/TA

Note
⁽¹⁾ Embossed carrier tape per EIA-481.



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.