



## Leaded Wirewound Resistors, Surface Mount, Cement Coated, High Power



### FEATURES

- SMT compatible termination
- All welded construction
- Ideal for pulsing application
- Ceramic core
- Available on tape and reel
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)



**RoHS**  
COMPLIANT

HALOGEN  
**FREE**  
Available

**GREEN**  
(5-2008)  
Available

STANDARD ELECTRICAL SPECIFICATIONS						
GLOBAL MODEL	SIZE	POWER RATING $P_{40^\circ\text{C}}$ W	RESISTANCE RANGE <sup>(1)</sup> $\Omega$ TCR (-10 to -80) ppm/K <sup>(2)</sup> (CLASS 1)	RESISTANCE RANGE <sup>(1)</sup> $\Omega$ TCR (100 to 180) ppm/K (CLASS 3)	TOLERANCE $\pm$ %	WEIGHT (typical) g
WSZ6720	6720	1.8 <sup>(3)</sup>	1 to 510	n/a	1	0.6
			0.22 to 510	n/a	2	
			0.10 to 510	24 to 3.3K	5	
			0.10 to 510	1.8 to 3.3K	10	

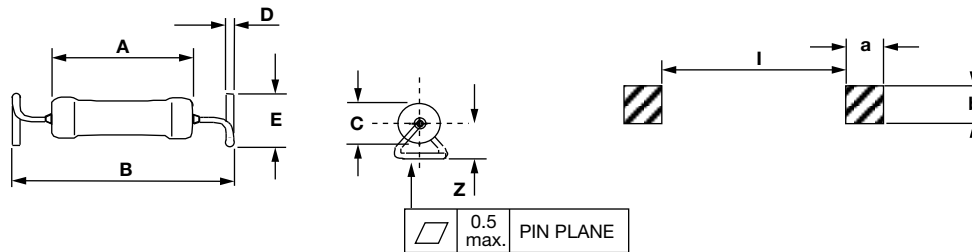
### Notes

- (1) Resistance value to be selected for  $\pm 10$  % tolerance from E12 and for  $\pm 5$  % from E24
- (2)  $R \leq 1 \Omega \leq 400$  ppm/K
- (3) Power rating depends on the maximum temperature at the solder point, solder pad dimensions, the component placement density and the substrate material
- (4) WSZ6720 is not recommended for new designs. Replacement is AC03-WSZ: [www.vishay.com/doc?28730](http://www.vishay.com/doc?28730)

PART NUMBER AND PRODUCT DESCRIPTION					
Part Number: <b>WSZ672011509KBM000</b>					
<b>W</b>	<b>S</b>	<b>Z</b>	<b>6</b>	<b>7</b>	<b>2</b>
<b>0</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>9</b>
<b>K</b>	<b>B</b>	<b>M</b>	<b>0</b>	<b>0</b>	<b>0</b>
MODEL	TCR / MATERIAL	VALUE	TOLERANCE CODE	PACKAGING	SPECIAL
<b>WSZ6720</b>	<b>1</b> = (-10 to -80) ppm/K WM 50 class 1 <b>3</b> = (100 to 180) ppm/K WM 110 class 3	<b>3 digit value</b> <b>1 digit multiplier</b> <b>MULTIPLIER</b> <b>7</b> = $*10^{-3}$ <b>8</b> = $*10^{-2}$ <b>9</b> = $*10^{-1}$ <b>0</b> = $*10^0$ <b>1</b> = $*10^1$ <b>2</b> = $*10^2$ <b>3</b> = $*10^3$	<b>F</b> = $\pm 1.0$ % <b>G</b> = $\pm 2.0$ % <b>J</b> = $\pm 5.0$ % <b>K</b> = $\pm 10.0$ %	<b>BM</b> = lead (Pb)-free, tape / reel	<b>3 digits</b> <b>000</b> = standard
Product description: <b>WSZ6720 1 15R 10 % BM</b>					
<b>WSZ6720</b>	<b>1</b>	<b>15 R</b>	<b>10 %</b>	<b>BM</b>	
TYPE / SIZE	TCR / MATERIAL	VALUE	TOLERANCE CODE	PACKAGING	



**DIMENSIONS**



MODEL	DIMENSIONS in millimeters (inches)					
	A	B	C	D	E	Z
WSZ6720	13.2 max. (0.520 max.)	17 ± 0.5 (0.670)	4.8 max. (0.189 max.)	0.8 max. (0.031 max.)	5 ± 0.5 (0.20 ± 0.02)	3.6 ± 0.5 (0.142 ± 0.02)

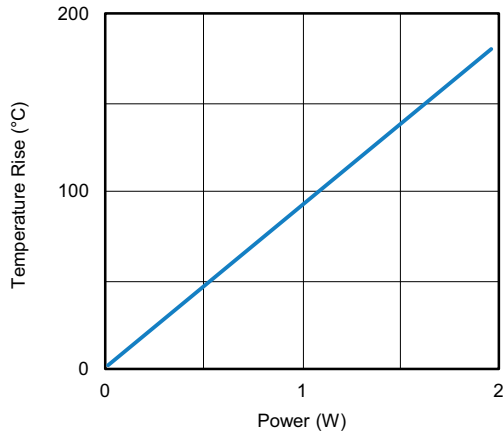
MODEL	SOLDER PAD DIMENSIONS in millimeters (inches)		
	a	b	l
WSZ6720	10.0 (0.394)	10.0 (0.394)	11.5 (0.453)

TECHNICAL SPECIFICATIONS					
Size	6720				
Resistance Range	1 Ω to 510 Ω	0.10 Ω to 510 Ω	0.22 Ω to 510 Ω	24 Ω to 3.3 kΩ	1.8 Ω to 3.3 kΩ
Tolerance	± 1 %	± 5 %, ± 10 %	± 2 %	± 5 %	± 10 %
Temperature Coefficient	-10 ppm/K to -80 ppm/K			100 ppm/K to 180 ppm/K	
Rated Dissipation, $P_{40}$	1.8 W				
Operating Temperature Range	-55 °C to +250 °C				
Maximum Working Voltage	$\sqrt{P \times R}$				
Terminal Strength	45 N minimum				

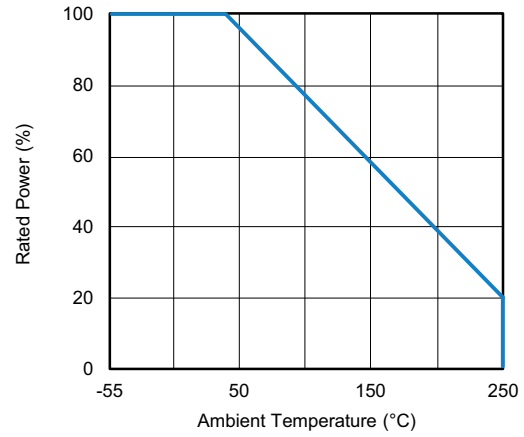
PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS $\Delta R_{max}$
Temperature Cycling	-55 °C to +125 °C, 5 cycles, 15 min at each extreme	± (3 % R + 0.05 Ω)
High Temperature Exposure	1000 h at + 250 °C	± (3 % R + 0.05 Ω)
Short Time Overload	5 x rated power for 5 s	± (1 % R + 0.05 Ω)
Shock, Specified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



**TEMPERATURE RISE (1)**



**DERATING**



**Note**

(1) Measurement based on recommended solder pads

<b>PACKAGING</b>				
<b>MODEL</b>	<b>REEL</b>			
	<b>TAPE WIDTH</b>	<b>DIAMETER</b>	<b>PIECES/REEL</b>	<b>CODE</b>
WSZ6720	24 mm	330 mm	1250	BM



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