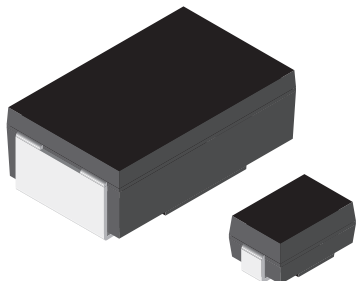


Wirewound Resistors, Precision Power, Surface Mount



FEATURES

- All welded construction
- Molded encapsulation
- Wrap around terminations
- Solderable termination
- Excellent stability at different environmental conditions
- High power ratings
- Superior surge capability
- Available in non-inductive styles with Aryton-Perry winding (WSN in lieu of WSC, maximum resistance is one-half WSC range)
- Lead (Pb)-free version is RoHS compliant



Pb-free Available

RoHS*
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	SIZE INCH	POWER RATING $P_{70^{\circ}\text{C}}$ W	TOLERANCE $\pm \%$	RESISTANCE RANGE Ω	ENCAPSULATION
WSC01/2	WSC-1/2	2012	0.5	0.5, 1, 5	0.1 - 4.99	Epoxy
WSC0001	WSC-1	2515	1.0	0.5, 1, 5	0.1 - 2.77 k	Epoxy
WSC2515	WSC2515	2515	1.0	0.5, 1, 5	0.1 - 2.77 k	Thermoplastic
WSC0002	WSC-2	4527	2.0	0.5, 1, 5	0.1 - 4.92 k	Epoxy
WSC4527	WSC4527	4527	2.0	0.5, 1, 5	0.1 - 4.92 k	Thermoplastic
WSC6927	WSC6927	6927	3.0	0.5, 1, 5	0.1 - 8 k	Thermoplastic

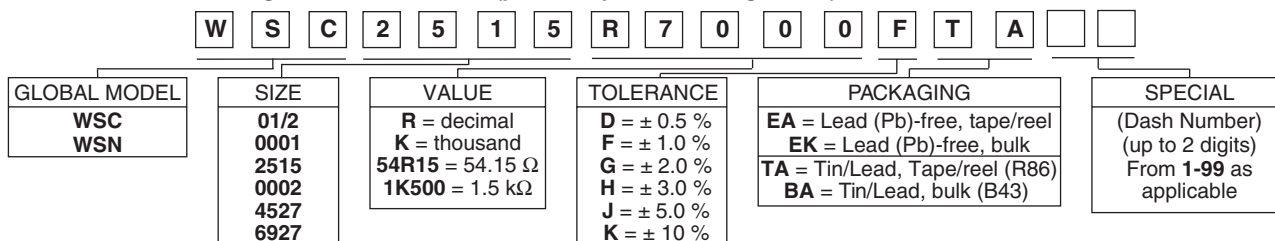
• Part Marking: 1/2 W - DALE, Value; 1 W - Model, Value, Tolerance, Date Code; 2 W & 3 W - DALE, Model, Value, Tolerance, Date Code

TECHNICAL SPECIFICATIONS

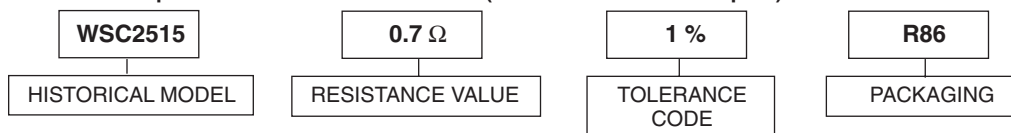
PARAMETER	UNIT	WSC01/2	WSC0001	WSC2515	WSC0002	WSC4527/WSC6927
Temperature Coefficient	ppm/°C	0.1 Ω - 0.99 Ω = ± 90 1.0 Ω - 4.99 Ω = ± 50	0.1 Ω - 0.99 Ω = ± 90 1.0 Ω - 26.5 Ω = ± 50 26.51 Ω and above = ± 20	0.1 Ω - 0.99 Ω = ± 90 1.0 Ω - 26.5 Ω = ± 50 26.51 Ω and above = ± 20	0.1 Ω - 0.99 Ω = ± 90 1.0 Ω - 9.9 Ω = ± 50 10.0 Ω and above = ± 20	0.1 Ω - 0.3 Ω = ± 150 0.31 Ω - 0.99 Ω = ± 90 1.0 Ω - 9.9 Ω = ± 50 10 Ω and above = ± 20
Dielectric Withstanding Voltage	V _{AC}	> 500	> 500	> 500	> 500	> 500
Insulation Resistance	Ω	> 10 ⁹	> 10 ⁹	> 10 ⁹	> 10 ⁹	> 10 ⁹
Operating Temperature Range	°C	- 65/+ 175	- 65/+ 175	- 65/+ 275	- 65/+ 175	- 65/+ 275
Maximum Working Voltage	V	(P x R) ^{1/2}	(P x R) ^{1/2}	(P x R) ^{1/2}	(P x R) ^{1/2}	(P x R) ^{1/2}
Weight/1000 pieces (typical)	g	90	165	165	760	760/1675

GLOBAL PART NUMBER INFORMATION

New Global Part Numbering: WSC2515R7000FTA (preferred part numbering format)



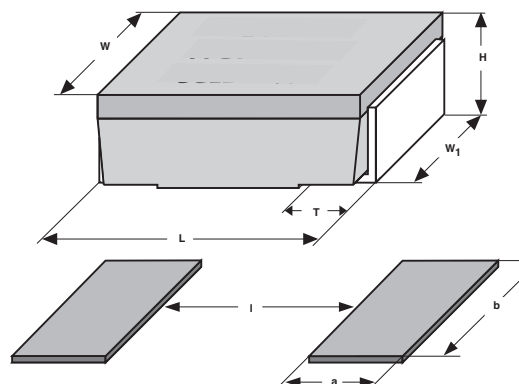
Historical Part Number example: WSC2515 0.7 Ω 1% R86 (will continue to be accepted)



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

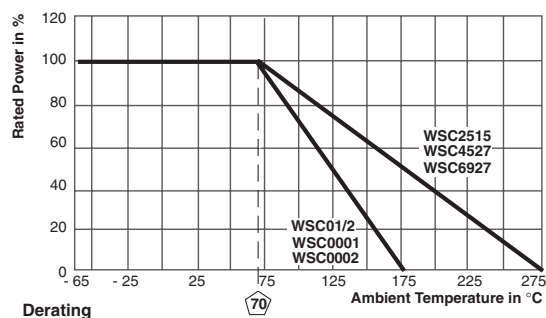
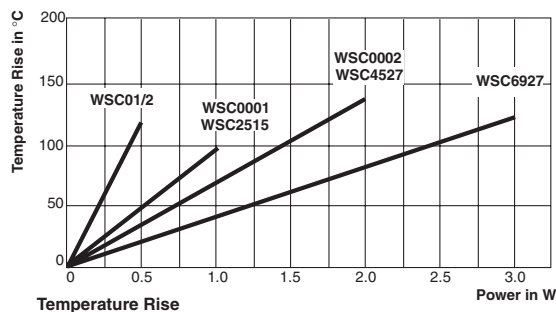


DIMENSIONS



MODEL	DIMENSIONS in inches [millimeters]				
	L	H	T	W	W ₁
WSC01/2	0.200 ± 0.020 [5.08 ± 0.508]	0.096 ± 0.015 [2.44 ± 0.381]	0.040 ± 0.010 [1.02 ± 0.254]	0.125 ± 0.005 [3.18 ± 0.127]	0.050 ± 0.010 [1.27 ± 0.254]
WSC0001	0.250 ± 0.020 [6.35 ± 0.508]	0.110 ± 0.015 [2.79 ± 0.381]	0.045 ± 0.010 [1.14 ± 0.254]	0.150 ± 0.005 [3.81 ± 0.127]	0.098 ± 0.005 [2.49 ± 0.127]
WSC2515	0.250 ± 0.020 [6.35 ± 0.508]	0.110 ± 0.015 [2.79 ± 0.381]	0.045 ± 0.010 [1.14 ± 0.254]	0.150 ± 0.005 [3.81 ± 0.127]	0.098 ± 0.005 [2.49 ± 0.127]
WSC0002	0.445 ± 0.032 [11.30 ± 0.813]	0.162 ± 0.015 [4.11 ± 0.381]	0.100 ± 0.010 [2.54 ± 0.254]	0.275 ± 0.005 [6.98 ± 0.127]	0.215 ± 0.005 [5.46 ± 0.127]
WSC4527	0.455 ± 0.020 [11.56 ± 0.508]	0.167 ± 0.010 [4.24 ± 0.254]	0.100 ± 0.010 [2.54 ± 0.254]	0.275 ± 0.005 [6.98 ± 0.127]	0.215 ± 0.005 [5.46 ± 0.127]
WSC6927	0.690 ± 0.032 [17.53 ± 0.813]	0.280 ± 0.015 [7.11 ± 0.381]	0.100 ± 0.010 [2.54 ± 0.254]	0.275 ± 0.005 [6.98 ± 0.127]	0.215 ± 0.015 [5.46 ± 0.381]

MODEL	SOLDER PAD DIMENSIONS in inches [millimeters]		
	a	b	l
WSC01/2	0.085 [2.16]	0.070 [1.78]	0.080 [2.03]
WSC0001	0.090 [2.29]	0.115 [2.92]	0.120 [3.05]
WSC2515	0.090 [2.29]	0.115 [2.92]	0.120 [3.05]
WSC0002	0.155 [3.94]	0.230 [5.84]	0.205 [5.21]
WSC4527	0.155 [3.94]	0.230 [5.84]	0.205 [5.21]
WSC6927	0.155 [3.94]	0.235 [5.97]	0.470 [11.94]



PERFORMANCE

TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	- 55 °C to + 150 °C, 1000 cycles, 15 minutes at each extreme	± (0.5 % + 0.05 Ω) ΔR
Short Time Overload	5 x rated power for 5 seconds	± (0.2 % + 0.05 Ω) ΔR
Low Temperature Storage	- 65 °C for 24 hours	± (0.2 % + 0.05 Ω) ΔR
High Temperature Exposure	1000 hours at + 275 °C (+ 175 °C for WSC01/2, WSC0001 and WSC0002)	± (0.5 % + 0.05 Ω) ΔR
Bias Humidity	+ 85 °C, 85 % RH, 10 % Bias, 1000 hours	± (0.2 % + 0.05 Ω) ΔR
Mechanical Shock	100 g's for 11 milliseconds, 5 pulses	± (0.1 % + 0.05 Ω) ΔR
Vibration	Frequency varied 10 to 500 Hz in one minute, 3 directions, 9 hours	± (0.1 % + 0.05 Ω) ΔR
Load Life	1000 hours at rated power, + 70 °C, 1.5 hours "ON", 0.5 hours "OFF"	± (1.0 % + 0.05 Ω) ΔR
Resistance to Solder Heat	+ 260 °C Solder, 10 -12 second dwell, 25 mm/second emergence	± (0.5 % + 0.05 Ω) ΔR

PACKAGING

MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSC01/2	12 mm/Embossed Plastic	330 mm/13"	2000	EA/TA
WSC0001/WSC2515	16 mm/Embossed Plastic	330 mm/13"	2000	EA/TA
WSC0002/WSC4527	24 mm/Embossed Plastic	330 mm/13"	1200	EA/TA
WSC6927	32 mm/Embossed Plastic	330 mm/13"	725	EA/TA

Embossed Carrier Tape per EIA-481-1, 2, 3



Notice

Specifications of the products displayed herein are subject to change without notice. Vishay Intertechnology, Inc., or anyone on its behalf, assumes no responsibility or liability for any errors or inaccuracies.

Information contained herein is intended to provide a product description only. No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document. Except as provided in Vishay's terms and conditions of sale for such products, Vishay assumes no liability whatsoever, and disclaims any express or implied warranty, relating to sale and/or use of Vishay products including liability or warranties relating to fitness for a particular purpose, merchantability, or infringement of any patent, copyright, or other intellectual property right.

The products shown herein are not designed for use in medical, life-saving, or life-sustaining applications. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Vishay for any damages resulting from such improper use or sale.