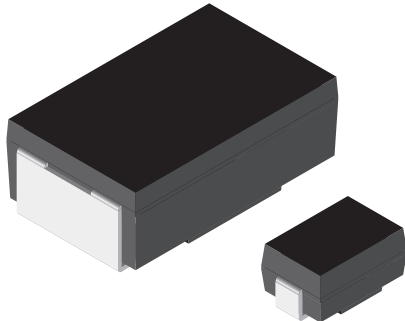


Wirewound Resistors, Precision Power, Surface Mount



FEATURES

- All welded construction
- Molded encapsulation
- Wrap around terminations
- SnPb electro tin plated terminations
- 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)

STANDARD ELECTRICAL SPECIFICATIONS

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

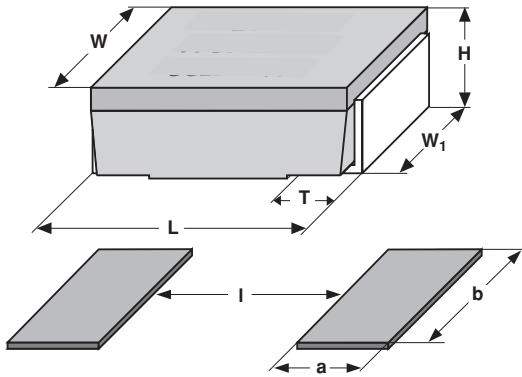
• Part Marking: 1/2W - DALE, Value; 1W - Model, Value, Tolerance, Date Code; 2W & 3W - DALE, Model, Value, Tolerance, Date Code.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	WSC-1/2	WSC-1	WSC2515	WSC-2	WSC4527/WSC6927
Temperature Coefficient	ppm/ $^{\circ}\text{C}$	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	$^{\circ}\text{C}$	- 65/ + 175	- 65/ + 175	- 65/ + 275	- 65/ + 175	- 65/ + 275
Maximum Working Voltage	V	$(P \times R)^{1/2}$	$(P \times R)^{1/2}$	$(P \times R)^{1/2}$	$(P \times R)^{1/2}$	$(P \times R)^{1/2}$
Weight/1000 pieces (typical)	g	90	165	165	760	760 / 1675

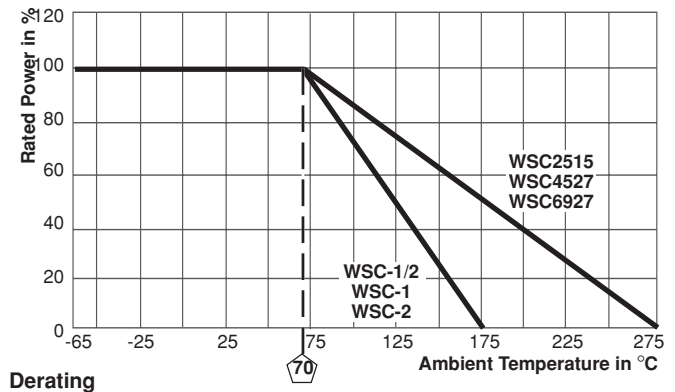
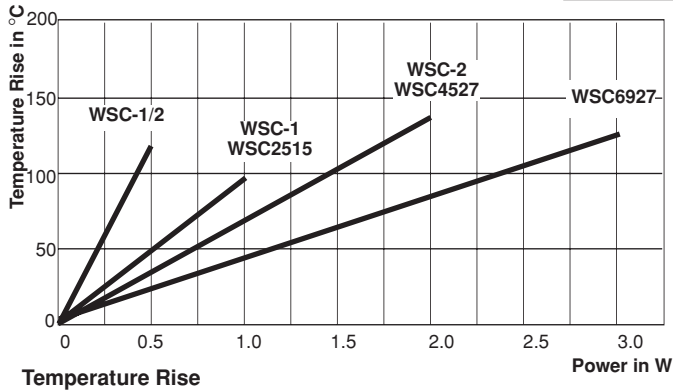
ORDERING INFORMATION

WSC2515	10 Ω	1.0%	R86
MODEL	RESISTANCE Ω	TOLERANCE $\pm \%$	PACKAGING B43 = Bulk Pack R86 = Tape and Reel

DIMENSIONS


MODEL	DIMENSIONS in inches [millimeters]				
	L	H	T	W	W ₁
WSC-1/2	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]
WSC-1	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]
WSC-2	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
WSC-1/2	0.085 [2.16]	0.070 [1.78]	0.080 [2.03]
WSC-1	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]
WSC-2	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% + 0.05Ω) ΔR
Short Time Overload	5 x rated power for 5 seconds	± (0.2% + 0.05Ω) ΔR
Low Temperature Storage	- 65°C for 24 hours	± (0.2% + 0.05Ω) ΔR
High Temperature Exposure	1000 hours at + 275°C (+ 175°C for WSC-1/2, WSC-1 and WSC-2)	± (0.5% + 0.05Ω) ΔR
Bias Humidity	+ 85°C, 85% RH, 10% Bias, 1000 hours	± (0.2% + 0.05Ω) ΔR
Mechanical Shock	100g's for 11 milliseconds, 5 pulses	± (0.1% + 0.05Ω) ΔR
Vibration	Frequency varied 10 to 500Hz in one minute, 3 directions, 9 hours	± (0.1% + 0.05Ω) ΔR
Load Life	1000 hours at rated power, + 70°C, 1.5 hours "ON", 0.5 hours "OFF"	± (1.0% + 0.05Ω) ΔR
Resistance to Solder Heat	+ 260°C Solder, 10 -12 second dwell, 25mm/second emergence	± (0.5% + 0.05Ω) ΔR

PACKAGING				
MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSC-1/2	12mm/Embossed Plastic	330mm/13"	2000	R86
WSC-1/WSC2515	16mm/Embossed Plastic	330mm/13"	2000	R86
WSC-2/WSC4527	24mm/Embossed Plastic	330mm/13"	1200	R86
WSC6927	32mm/Embossed Plastic	330mm/13"	725	R86

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