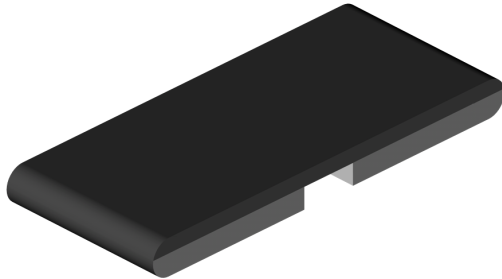


Power Metal Strip[®] Resistors, High Power (5 watt) Low Value (down to 0.001 Ω), Surface Mount



FEATURES

- Improved thermal management incorporated into design
- Ideal for all types of current sensing, voltage division and pulse applications including switching and linear power supplies, instruments, power amplifiers
- Proprietary processing technique produces extremely low resistance values
- All welded construction
- Solid metal Nickel-chrome or Manganese-copper alloy resistive element with low TCR (< 20 ppm/°C)
- Lead (Pb)-free construction
- Very low inductance (< 5 nH)
- Excellent frequency response to 50 MHz
- Low thermal EMF (< 3 μV/°C)



RoHS
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS			
GLOBAL MODEL	POWER RATING <i>P</i> _{70 °C} W	TOLERANCE %	RESISTANCE RANGE Ω
WSH2818	5*	1.0	0.001 - 0.1

* The WSH2818 is rated at 5 watts with maximum surface temperature of 200 °C

TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	WSH2818
Temperature Coefficient	ppm/°C	± 200 for 1 mΩ to 5.99 mΩ ± 75 for 6 mΩ to 100 mΩ
Inductance	nH	< 5
Operating Temperature Range	°C	- 65/+ 170
Maximum Continuous Current	A	(P/R) ^{1/2}
Weight/1000 pieces	g	126

GLOBAL PART NUMBER INFORMATION																
Global Part Numbering: WSH2818R1000FEA																
W	S	H	2	8	1	8	R	1	0	0	0	F	E	A		
GLOBAL MODEL			RESISTANCE VALUE			TOLERANCE CODE			PACKING CODE			SPECIAL				
WSH2818			L = Milliohm* R = Decimal 4L000 = 0.004 Ω R0100 = 0.01 Ω * use "L" for resistance values < 0.01 Ω			F = ± 1.0 % J = ± 5.0 %			EA = Lead (Pb)-free, Tape/Reel EK = Lead (Pb)-free, Bulk			(Dash number up to 2 digits) From 1 - 99 as applicable				

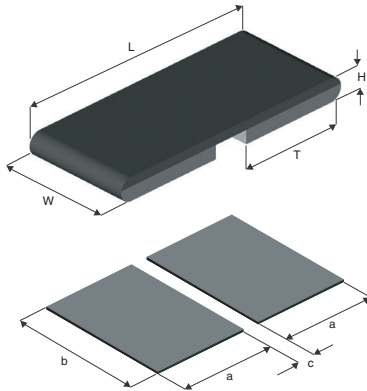


Power Metal Strip® Resistors, High Power (5 watt)
Low Value (down to 0.001 Ω), Surface Mount

WSH2818

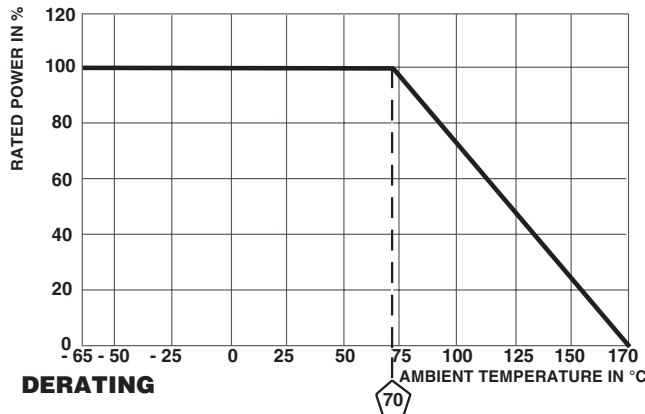
Vishay Dale

DIMENSIONS



MODEL	DIMENSIONS in inches [millimeters]				
	RESISTANCE RANGE Ω	L	W	H	T
WSH2818	0.006 - 0.1	0.280 ± 0.010 [7.1 ± 0.25]	0.180 ± 0.010 [4.6 ± 0.25]	0.032 ± 0.010 [0.813 ± 0.25]	0.125 ± 0.010 [3.18 ± 0.25]
	0.001 - 0.0059	0.280 ± 0.010 [7.1 ± 0.25]	0.180 ± 0.010 [4.6 ± 0.25]	0.045 ± 0.010 [1.143 ± 0.25]	0.125 ± 0.010 [3.18 ± 0.25]

MODEL	SOLDER PAD DIMENSIONS in inches [millimeters]		
	a	b	c
WSH2818	0.138 [3.5]	0.200 [5.1]	0.024 [0.61]



PERFORMANCE		
TEST	CONDITIONS OF TEST	TEST LIMITS
Thermal Shock	- 55 °C to + 150 °C, 1000 cycles, 15 minutes at each extreme	± 0.5 % ΔR
Short Time Overload	4 x rated power for 5 seconds	± 1.0 % ΔR
Low Temperature Operation	- 65 °C for 45 minutes	± 0.5 % ΔR
High Temperature Exposure	1000 hours at + 170 °C	± 1.0 % ΔR
Bias Humidity	+ 85 °C, 85 % RH, 10 % Bias, 1000 hours	± 0.5 % ΔR
Mechanical Shock	100 g's for 6 milliseconds, 5 pulses	± 0.5 % ΔR
Vibration	Frequency varied 10 to 2000 Hz in one minute, 3 directions, 12 hours	± 0.5 % ΔR
Load Life	1000 hours at + 70 °C, 1.5 hours "ON", 0.5 hours "OFF"	± 1.0 % ΔR
Resistance to Solder Heat	+ 260 °C Solder, 10 - 12 second dwell, 25 mm/second emergence	± 0.5 % ΔR
Moisture Resistance	MIL-STD-202, Method 106, 0 % power, 7b not required	± 0.5 % ΔR

PACKING				
MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSH2818	16 mm/Embossed Plastic	330 mm/13"	3500	EA

Embossed carrier tape per EIA-481-2



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.