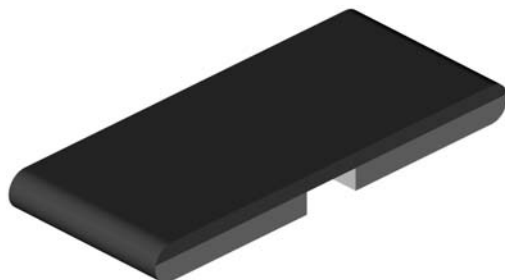


## Power Metal Strip® Resistors, High Power Low Value, Surface Mount



### 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
- Excellent frequency response
- Low thermal EMF


**RoHS**  
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS			
GLOBAL MODEL	POWER RATING $P_{70\text{ }^{\circ}\text{C}}$ W	TOLERANCE %	RESISTANCE RANGE $\Omega$
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	$\pm 200$ for 1 m $\Omega$ to 5.99 m $\Omega$ $\pm 75$ for 6 m $\Omega$ to 100 m $\Omega$
Inductance	$\eta$ H	< 5
Operating Temperature Range	°C	- 65 / + 170
Maximum Continuous Current	A	(P/R) <sup>1/2</sup>
Weight/1000 pieces	g	126

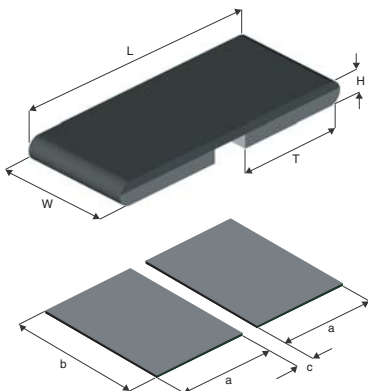
Global Part Number Information																
Global Part Numbering: WSH2818R1000FEA																
W	S	H	2	8	1	8	R	1	0	0	0	F	E	A		
GLOBAL MODEL			RESISTANCE VALUE				TOLERANCE CODE		PACKING CODE				SPECIAL			
WSH2818			L = Milliohm* R = Decimal 4L000 = 0.004 Ω R0100 = 0.01 Ω  *use "L" for resistance 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 Low Value, Surface Mount

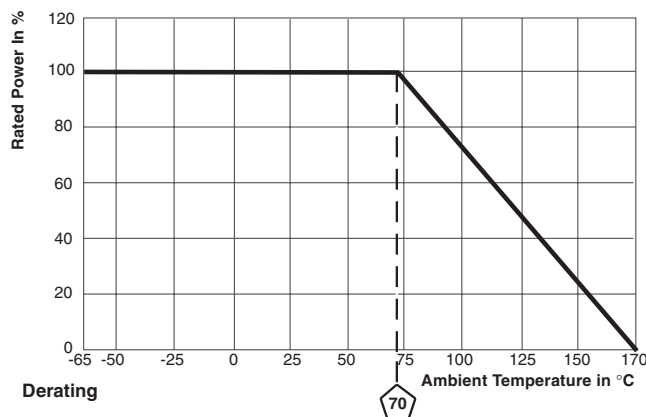
**WSH2818**

Vishay Dale

**DIMENSIONS**

MODEL	DIMENSIONS in inches [millimeters]				
	RESISTANCE RANGE $\Omega$	L	W	H	T
WSH2818	0.006 - 0.1	$0.280 \pm 0.10$ [7.1 $\pm$ 0.25]	$0.180 \pm 0.10$ [4.6 $\pm$ 0.25]	$0.032 \pm 0.10$ [0.813 $\pm$ 0.25]	$0.125 \pm 0.10$ [3.18 $\pm$ 0.25]
	0.001 - 0.0059	$0.280 \pm 0.10$ [7.1 $\pm$ 0.25]	$0.180 \pm 0.10$ [4.6 $\pm$ 0.25]	$0.045 \pm 0.10$ [1.143 $\pm$ 0.25]	$0.125 \pm 0.10$ [3.18 $\pm$ 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	$\pm 0.5 \% \Delta R$
Short Time Overload	4 x rated power for 5 seconds	$\pm 1.0 \% \Delta R$
Low Temperature Operation	- 65 °C for 45 minutes	$\pm 0.5 \% \Delta R$
High Temperature Exposure	1000 hours at + 170 °C	$\pm 1.0 \% \Delta R$
Bias Humidity	+ 85 °C, 85 % RH, 10 % Bias, 1000 hours	$\pm 0.5 \% \Delta R$
Mechanical Shock	100 g's for 6 milliseconds, 5 pulses	$\pm 0.5 \% \Delta R$
Vibration	Frequency varied 10 to 2000 Hz in one minute, 3 directions, 12 hours	$\pm 0.5 \% \Delta R$
Load Life	1000 hours at + 70 °C, 1.5 hours "ON", 0.5 hours "OFF"	$\pm 1.0 \% \Delta R$
Resistance to Solder Heat	+ 260 °C Solder, 10 - 12 second dwell, 25 mm/second emergence	$\pm 0.5 \% \Delta R$
Moisture Resistance	MIL-STD-202, Method 106, 0 % power, 7b not required	$\pm 0.5 \% \Delta R$

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



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