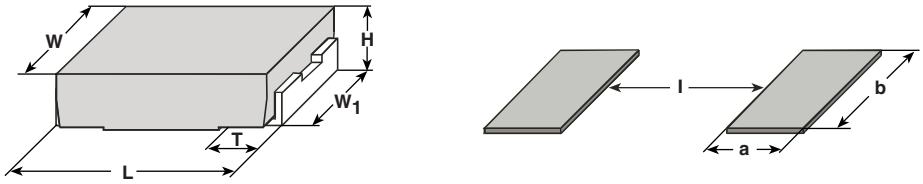
TECHNICAL SPECIFICATIONS		
PARAMETER	**UNIT**	**WSR2 AND WSR3 RESISTOR CHARACTERISTICS**
Temperature coefficient TCR measured from -55 °C to 150 °C	ppm/°C	± 75 for 0.010 Ω to 1.0 Ω
		± 110 for 0.005 Ω to 0.0099 Ω
		± 300 for 0.004 Ω to 0.0049 Ω
		± 450 for 0.003 Ω to 0.0039 Ω
		± 600 for 0.002 Ω to 0.0029 Ω
		± 750 for 0.001 Ω to 0.0019 Ω
Element TCR	ppm/°C	< 20
Dielectric withstanding voltage	V_{AC}	> 500
Insulation resistance	Ω	$> 10^9$
Operating temperature range	°C	-65 to +275
Maximum working voltage	V	$(P \times R)^{1/2}$

DIMENSIONS in inches (millimeters)



Notes

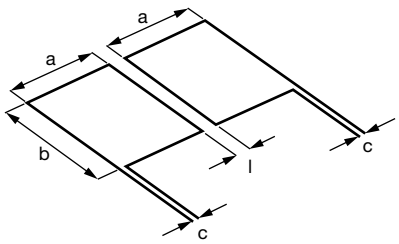
- 3D models available: www.vishay.com/doc?30336
- Surface mount solder profile recommendations: www.vishay.com/doc?31052

MODEL	DIMENSIONS					SOLDER PAD DIMENSIONS		
	L	H	T	W	W_1	a	b	l
WSR2, WSR3	0.455 ± 0.032 (11.56 ± 0.813)	0.095 ± 0.005 (2.41 ± 0.127)	0.100 ± 0.010 (2.54 ± 0.254)	0.275 ± 0.005 (6.98 ± 0.127)	0.215 ± 0.005 (5.46 ± 0.127)	0.155 (3.94)	0.230 (5.84)	0.205 (5.21)

Note

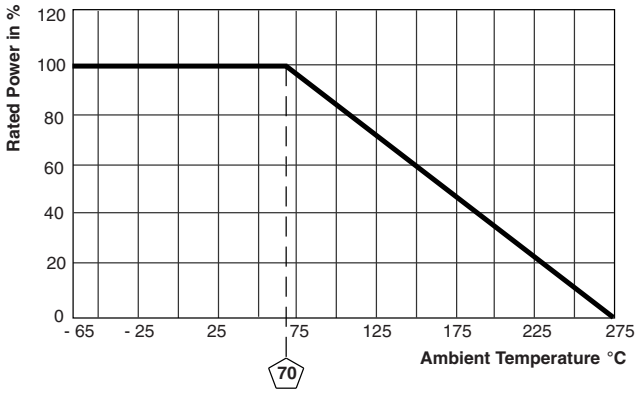
- Sensing locations are based on the construction of the part; terminals are wrapped from the outside to underneath. These options place the sensing location nearest the temperature stable resistance element, which minimizes contact resistance and optimizes TCR

TYPICAL SENSING LAYOUT

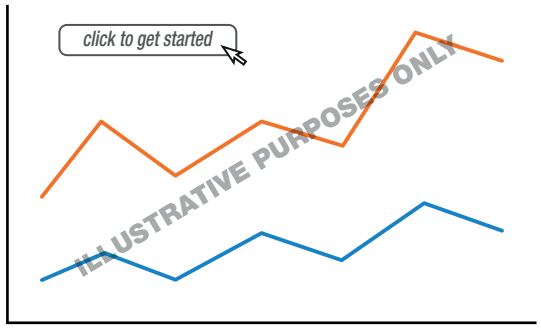


a	b	c	l
0.155 (3.94)	0.230 (5.84)	0.020 (0.51)	0.205 (5.21)

DERATING



PULSE CAPABILITY



www.vishay.com/resistors/power-metal-strip-calculator

PERFORMANCE

TEST	CONDITIONS OF TEST	TEST LIMITS	
		WSR2	WSR3
Thermal shock	-55 °C to +150 °C, 1000 cycles, 15 min at each extreme	± 0.5 % + 0.0005 Ω	± 0.5 % + 0.0005 Ω
Short time overload	WSR2: 5x rated power for 5 s WSR3: 4x rated power for 5 s	± 0.5 % + 0.0005 Ω	± 2.0 % + 0.0005 Ω
Low temperature storage	-65 °C for 24 h	± 0.5 % + 0.0005 Ω	± 0.5 % + 0.0005 Ω
High temperature exposure	1000 h at +275 °C	± 1.0 % + 0.0005 Ω	± 1.0 % + 0.0005 Ω
Bias humidity	+85 °C, 85 % RH, 10 % bias, 1000 h	± 0.5 % + 0.0005 Ω	± 0.5 % + 0.0005 Ω
Mechanical shock	100 *g*'s for 6 ms, 5 pulses	± 0.5 % + 0.0005 Ω	± 0.5 % + 0.0005 Ω
Vibration	Frequency varied 10 Hz to 2000 Hz in 1 min, 3 directions, 12 h	± 0.5 % + 0.0005 Ω	± 0.5 % + 0.0005 Ω
Load life	1000 h at rated power, +70 °C, 1.5 h "ON", 0.5 h "OFF"	± 1.0 % + 0.0005 Ω	± 2.0 % + 0.0005 Ω
Resistance to solder heat	+260 °C solder, 10 s to 12 s dwell, 25 mm/s emergence	± 0.5 % + 0.0005 Ω	± 0.5 % + 0.0005 Ω
Moisture resistance	MIL-STD-202, method 106, 0 % power, 7a and 7b not required	± 0.5 % + 0.0005 Ω	± 0.5 % + 0.0005 Ω

PACKAGING (1)

MODEL	REEL			
	TAPE WIDTH	DIAMETER	PIECES/REEL	CODE
WSR2 and WSR3	24 mm/embossed plastic	330 mm/13"	1500	EA

Notes

- Embossed Carrier Tape per EIA-481

(1) Additional packaging details at www.vishay.com/doc?20051

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WSR31L350JTA WSR2R3900FTB WSR2R0700FTB WSR21L000JTB WSR35L000FTB WSR32L200JBA WSR31L500JBA WSR2R5200FEB WSR2R0400FEB WSR2R0250FEB WSR2R3900FEB WSR2R0125FEB WSR2R3650FEB WSR2R0700FEB WSR35L000FEB WSR21L000JEB WSR27L000FEB WSR25L000FEB WSR28L000FEB WSR2R3000FEB WSR2R3300FEB WSR36L000FEB WSR3R0120FEB WSR3R0300FEB WSR3R0330FEB WSR23L000FEB WSR24L000FEB WSR26L000FEB WSR2R0800FEB WSR2R0900FEB WSR33L000FEB WSR34L000FEB WSR37L000FEB WSR38L000FEB WSR39L000FEB WSR3R0400FEB WSR3R0700FEB WSR3R0900FEB WSR31L000JBA WSR22L200JTA WSR2R0330FTB WSR2R1460FBA WSR3R0300FTB WSR3R0500FTB WSR2R4300DTA WSR3R1500FTA WSR-2 .1 1%R86 WSR-2 .15 1%R86 WSR-2 .2 .5%R86 WSR2R0300FEB WSR2R1800FEB WSR2R5000FEB WSR-3 .01 1% WSR-3 .02 1% WSR-3 .1 1%TR WSR3R0600FTA WSR2R0500FTB WSR2R0300FTB WSR2R3000FTB WSR2R3300FTB WSR2R5000FTB WSR36L000FTB WSR35L000FT WSR3R0125FEA