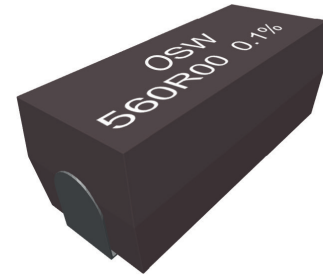


## OSW - Series

## SMD Current Measuring Wire - Wound Resistors

### FEATURES

- Resistance from 0,1Ω
- Flame Withstanding Design
- Moisture Resistant Epoxy Body
- Excellent Pulse Handling Capabilities
- Flexible Connecting Leads
- Induction Reduced Types (Option)
- RoHS - compliant



### RATED VALUES (IEC 60115-1)

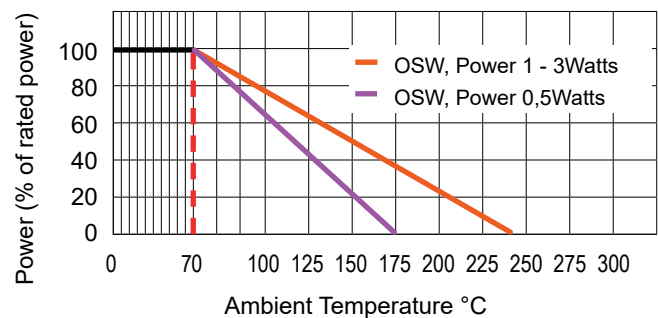
Resistance Range	Ω	0,1Ω to 1KΩ
Resistance Tolerance	%	±0,5% to ±5,0%
Temperature Coefficient	ppm/°C	±20ppm/°C > 10Ω; ±50ppm/°C von 0,1Ω - 10Ω; (±10ppm/°C on request)
Working Voltage (U <sub>max</sub> )	V	$\sqrt{P \times R}$
Insulation Resistance (R <sub>ins</sub> )	Ω	1GΩ
Operating Temperature Range (T)	°C	-55°C - 175°C

Type	Power (W)	Tolerance- /Resistance Range		
		±0,5%	±1,0%	±5,0%
OSW1930	0,5	10Ω - 150Ω	0,250Ω - 150Ω	0,250Ω - 150Ω
OSW2615	1	10Ω - 200Ω	0,100Ω - 200Ω	0,100Ω - 200Ω
OSW4525	2	10Ω - 1KΩ	0,250Ω - 1KΩ	0,250Ω - 1KΩ
OSW6227	3	10Ω - 1KΩ	0,100Ω - 1KΩ	0,100Ω - 1KΩ

### CONSTRUCTION

Resistance Material	Wire, Special Alloy
Winding	Wire Windings on Ceramics
Coating	Epoxy Moulding
Lead Wires	Tin Plated Copper Wire

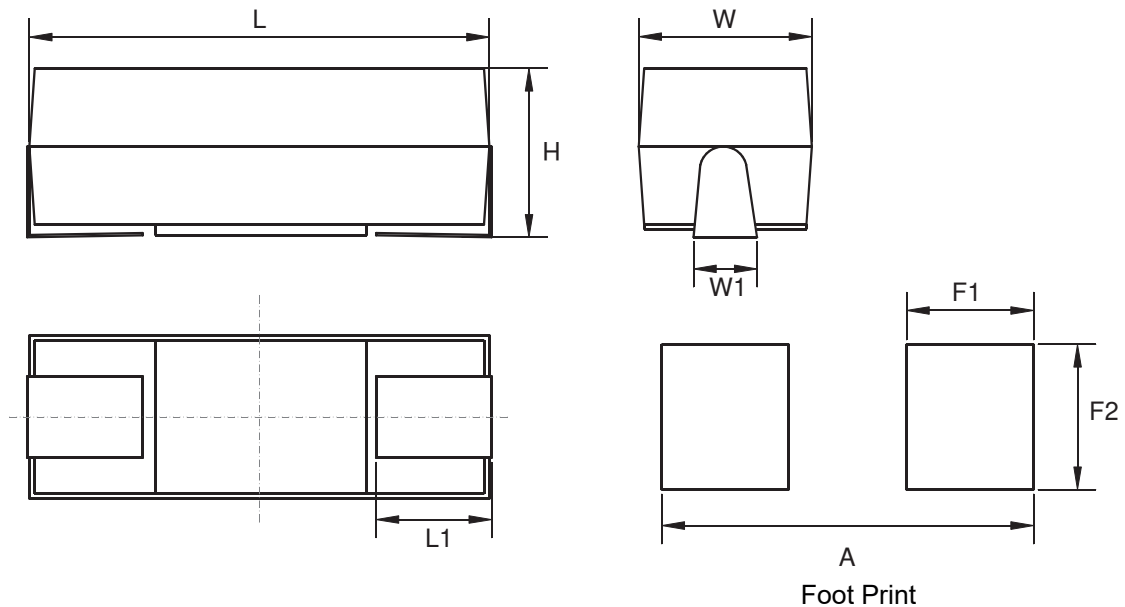
### POWER DERATING CURVE



### PERFORMANCE

IEC 60115-1	Test	Conditions of Test	Specification $\Delta R$
4.23	Moisture Resistance	+40°C, 90-95% R.H., Rated Voltage, 1000h	$\pm(5,0\% R + 0,05\Omega)$
4.19	Thermal Shock	-25°C 30 Minutes, +70°C 30 Minutes, 5 Cycles	$\pm(5,0\% R + 0,05\Omega)$
4.6	Dielectric Strength	$U_{ins}$ 1000 V, 1 Minute	1G $\Omega$
4.13	Short Time Overload	2,5 x Rated Voltage, $U_{max}$ , 5s	$\pm(2,0\% R + 0,05\Omega)$
4.25	Endurance	+70°C, $U_{max}$ 1,5h „ON“ and 0,5h „OFF“, 1000h	$\pm(5,0\% R + 0,05\Omega)$
4.18	Soldering Resistance	245°C, max. 3s	95% Covered Contact

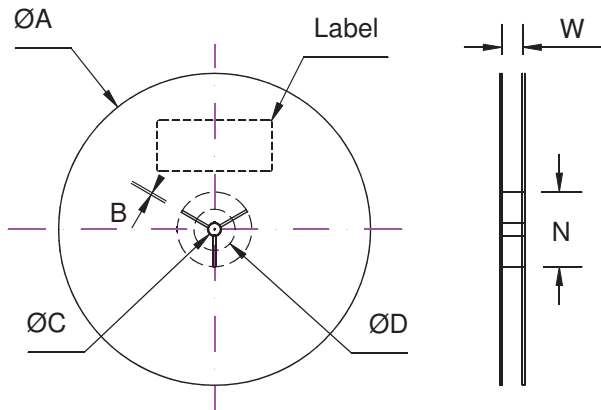
### DIMENSIONS



	L	H	W	W1	L1	A	F1	F2
OSW1930	6,6 ±0,5	3,2 ±0,25	4,0 ±0,5	1,0 ±0,4	1,2 ±0,4	8,0 ±0,4	2,0 ±0,4	2,0 ±0,4
OSW2615	9,6 ±0,5	3,5 ±0,25	4,2 ±0,5	1,2 ±0,4	1,8 ±0,4	11,5 ±0,4	3,0 ±0,4	2,2 ±0,4
OSW4525	11,4 ±0,5	4,6 ±0,25	6,5 ±0,5	2,0 ±0,4	2,2 ±0,4	13,5 ±0,4	3,2 ±0,4	2,5 ±0,4
OSW6227	15,8 ±0,5	6,5 ±0,25	6,9 ±0,5	3,0 ±0,4	3,0 ±0,4	18,0 ±0,4	4,5 ±0,4	3,0 ±0,4

All Dimension in mm

### TAPE & REEL DIMENSIONS



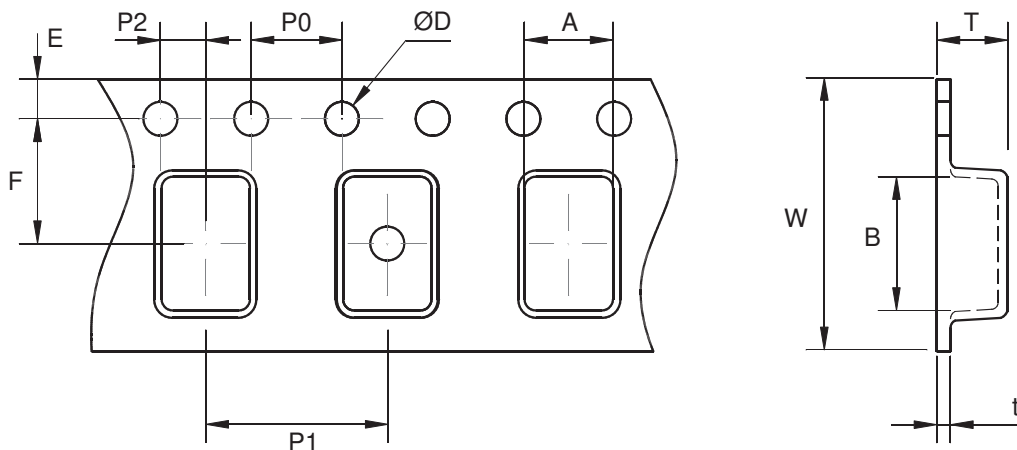
Reel	A	B	C	D	N	W
330,0 13"	330 +5	2,0 +0,1	13,0 +0,5	23,0 ±1,0	100,0 +1,0	17,0 ±1,5
	330 +5	2,0 +0,1	13,0 +0,5	23,0 ±1,0	100,0 +1,0	25,0 ±1,5
	330 +5	2,0 +0,1	13,0 +0,5	23,0 ±1,0	100,0 +1,0	25,0 ±1,5
	330 +5	2,0 +0,1	13,0 +0,5	23,0 ±1,0	100,0 +1,0	25,0 ±1,5

All Dimension in mm

### PACKAGING QUANTITIES

Reel	OSW1930	OSW2615	OSW4525	OSW6227
330mm	2000	2000	1000	500

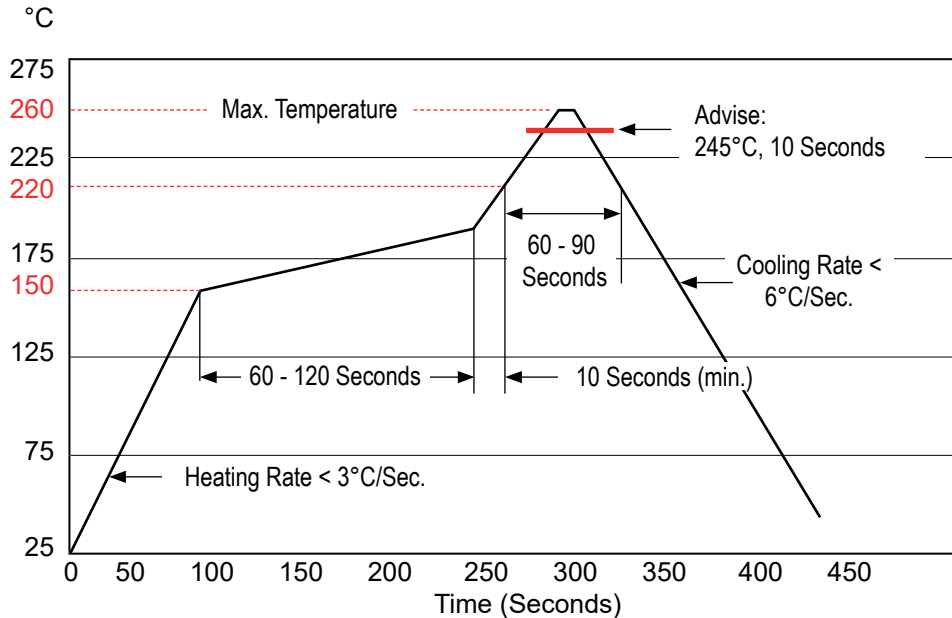
### TAPE & REEL DIMENSIONS



	W	A	B	T	P <sub>0</sub>	P <sub>1</sub>	P <sub>2</sub>	E	F	t	D
OSW1930	16,0 ±0,3	4,00 ±0,1	7,30 ±0,1	3,75 ±0,1	4,0 ±0,3	8,0 ±0,1	2,0 ±0,1	1,75 ±0,1	7,50 ±0,3	0,3 max.	1,5 +0,1 -0,0
OSW2615	24,0 ±0,3	4,50 ±0,1	10,2 ±0,1	3,80 ±0,1	4,0 ±0,3	8,0 ±0,1	2,0 ±0,1	1,75 ±0,1	11,5 ±0,3	0,3 max.	1,5 +0,1 -0,0
OSW4525	24,0 ±0,3	6,70 ±0,1	12,5 ±0,1	5,00 ±0,1	4,0 ±0,3	12,0 ±0,1	2,0 ±0,1	1,75 ±0,1	11,5 ±0,3	0,3 max.	1,5 +0,1 -0,0
OSW6227	24,0 ±0,3	6,70 ±0,1	16,9 ±0,1	7,10 ±0,1	4,0 ±0,3	12,0 ±0,1	2,0 ±0,1	1,75 ±0,1	11,5 ±0,3	0,3 max.	1,5 +0,1 -0,0

(IEC 60286-3, EIA 481 compliant) All Dimensions in mm

### SOLDERING RECOMMENDATIONS



- Remark: The reflow soldering profile is a recommendation based on EN 61760-1, system and environmental specific, critical influences are not taken into account. Resistors of a closer precision range (resistance tolerance <0.1% in combination with resistance values  $\leq 1\Omega$ ) should be hand-soldered by trained personnel, otherwise a change of nominal values (drift) can occur.

### OPTIONENS

Inductance - reduced Version (N)	Nominal Resistance Value x 0,5
Special Temperature Coefficients	$\pm 10\text{ppm}/^\circ\text{C}$ ; $\pm 5\text{ppm}/^\circ\text{C}$ , on request depending on resistance value and tolerance

### ORDERING INFORMATION

**OSW1930 100R00 0,1% TK20 T** (OSW1930; 100 $\Omega$ ;  $\pm 0,1\%$ ;  $\pm 20\text{ppm}/^\circ\text{C}$ ; Tape on Reel)

Type	Resistance Value	Tolerance	Temperature Coefficient	Power	Option	Packaging
<b>OSW1930</b>	0R1000	0,5%	TK90	-	-	T (Tape&Reel) B (Bulk)
	100R00	1,0%	TK50			
	1K0000	5,0%	TK20 (TK10 on request)			