

## Wirewound Resistor, Industrial Power, Silicone Coated, Miniature Oval



### FEATURES

- High temperature silicone coating
- Mounting accommodations ideally suited to high density packaging
- Available in non-inductive style (special "NI") with Ayrton-Perry winding
- Self-stacking hardware for horizontal or vertical placement
- Mounting hardware functions as a heat sink allowing greater heat dissipation and less derating of stacked units
- Material categorization: for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25^\circ\text{C}}$ W	RESISTANCE RANGE $\Omega$ $\pm 5\%$	RESISTANCE RANGE $\Omega$ $\pm 10\%$	WEIGHT (typical) g
FSOT10 FSOT10-NI	FSOT-10 FSOT-10-NI	10	1.0 to 15K 1.0 to 1.8K	0.10 to 15K 1.0 to 1.8K	0.41
FSOT15 FSOT15-NI	FSOT-15 FSOT-15-NI	15	1.0 to 26K 1.0 to 3.6K	0.10 to 26K 1.0 to 3.6K	0.47
FSOT20 FSOT20-NI	FSOT-20 FSOT-20-NI	20	1.0 to 71K 1.0 to 9.8K	0.10 to 71K 1.0 to 9.8K	0.74

### TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	FSOT RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/ $^\circ\text{C}$	$\pm 260$ for $20\ \Omega$ and above, $\pm 400$ for $1\ \Omega$ to $20\ \Omega$ , special TC's available
Short Time Overload	-	10 x rated power for 5 s
Dielectric Withstanding Voltage	V <sub>AC</sub>	1000, from terminal to mounting hardware
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Operating Temperature Range	$^\circ\text{C}$	-55 to +350

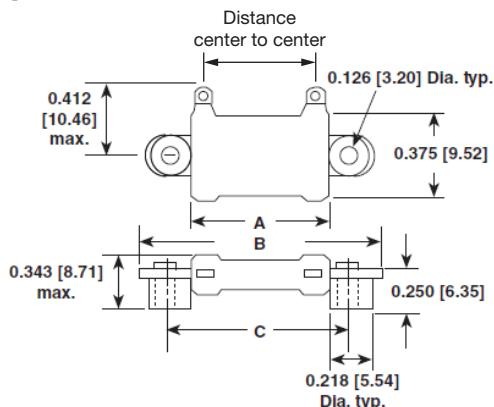
### GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: FSOT2011E25R00JE (visit [www.vishay.net](http://www.vishay.net) SAP parts manual for all options)

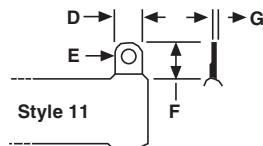
F	S	O	T	2	0	1	1	E	2	5	R	0	0	J	E	
GLOBAL MODEL (6 digits)	TERMINAL DESIGNATION (2 digits)	TERMINAL FINISH (1 digit)	VALUE (5 digits)	TOLERANCE (1 digit)	PACKAGING CODE (1 digit)	SPECIAL (up to 2 digits)										
(See Standard Electrical Specifications Global Model column for options)	11	E = lead (Pb)-free	R = decimal K = thousand 1R500 = 1.5 $\Omega$ 1K500 = 1.5 k $\Omega$	J = $\pm 5\%$ K = $\pm 10\%$	E = Lead (Pb)-free cell and bulk pack	(Dash number) From 1 to 99 as applicable NI = non-inductive										

Historical Part Number example: FSOT-20-25-5 %

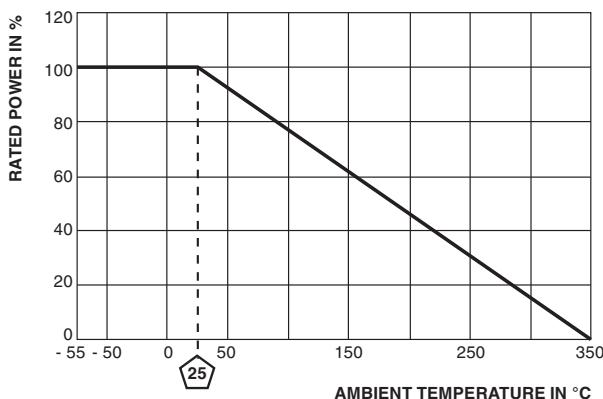
FSOT-20	25 $\Omega$	5 %	
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE	SPECIAL

**DIMENSIONS** in inches [millimeters]


MODEL	DIMENSIONS in inches [millimeters]				
	A ± 0.063 [1.59]	B ± 0.063 [1.59]	C ± 0.031 [0.79]	DISTANCE CENTER TO CENTER (REF.)	STANDARD TERMINAL DESIGNATION
FSOT10	0.750 [19.05]	1.312 [33.32]	1.000 [25.40]	0.531 [13.49]	11
FSOT15	1.000 [25.40]	1.562 [39.67]	1.250 [31.75]	0.781 [19.84]	11
FSOT20	2.062 [52.37]	2.625 [66.68]	2.312 [58.72]	1.843 [46.81]	11

**TERMINAL DIMENSIONS**


DIMENSIONS	DIMENSIONS in inches [millimeters]	
	STYLE 11	
D	0.125 [3.18]	
E (HOLE DIAMETER)	0.081 [2.10]	
F	0.235 [5.97]	
G	0.020 [0.51]	

**DERATING**

**MATERIAL SPECIFICATIONS**

**Element:** copper-nickel alloy or nickel-chrome alloy, depending on resistance value

**Core:** ceramic, steatite

**Coating:** special high temperature silicone

**Standard Terminals:** tinned alloy 42

**Terminal Bands:** alloy 42

**Part Marking:** HE1, model, wattage, value, tolerance, date code

**NON-INDUCTIVE**

Models of equivalent physical and electrical specifications are available with non-inductive (Ayrton-Perry) winding. They are identified by adding the letters "NI" to the end of the part number in the special section. For non-inductive models the maximum resistance values are lower, see Standard Electrical Specifications table.

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# Mouser Electronics

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