

Wirewound Resistor, Industrial Power, Silicone Coated, Standard 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


RoHS
COMPLIANT

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25^{\circ}\text{C}}$ W	RESISTANCE RANGE Ω $\pm 5\%$	RESISTANCE RANGE Ω $\pm 10\%$	WEIGHT (typical) g
FSOT30 FSOT30-NI	FSOT-30 FSOT-30-NI	30	1.0 to 11K 1.0 to 1.2K	0.10 to 11K 1.0 to 1.2K	20.14
FSOT40 FSOT40-NI	FSOT-40 FSOT-40-NI	40	1.0 to 26K 1.0 to 3K	0.10 to 26K 1.0 to 3K	30.07
FSOT55 FSOT55-NI	FSOT-55 FSOT-55-NI	55	1.0 to 54K 1.0 to 6.8K	0.10 to 54K 1.0 to 6.8K	51.25
FSOT65 FSOT65-NI	FSOT-65 FSOT-65-NI	70	1.0 to 77K 1.0 to 9.4K	0.10 to 77K 1.0 to 9.4K	60.48
FSOT75 FSOT75-NI	FSOT-75 FSOT-75-NI	95	1.0 to 99.9K 1.0 to 12.4K	0.10 to 99.9K 1.0 to 12.4K	76.51

TECHNICAL SPECIFICATIONS

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

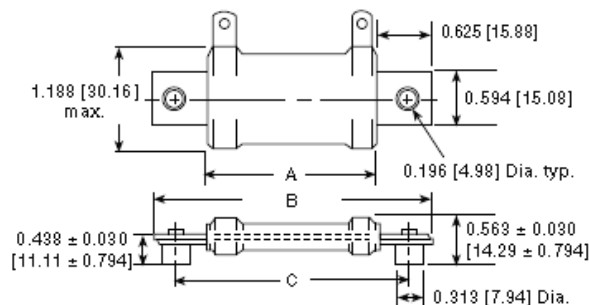
GLOBAL PART NUMBER INFORMATION

Global Part Numbering example: **FSOT5509E25R00JE** (visit www.vishay.net SAP parts manual for all options)

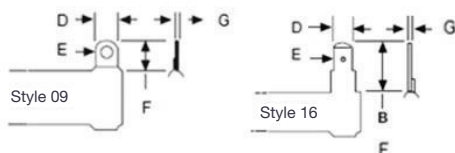
F	S	O	T	5	5	0	9	E	2	5	R	0	0	J	E		
GLOBAL MODEL (6 digits)	TERMINAL DESIGNATION (2 digits)	TERMINAL FINISH (1 digit)	VALUE (5 digits)	TOLERANCE (1 digit)	PACKAGING CODE (1 digit)	SPECIAL (up to 2 digits)											
(See Standard Electrical Specifications Global Model column for options)	09 16	E = Lead (Pb)-free	R = Decimal K = Thousand 1R500 = 1.5 Ω 1K500 = 1.5 k Ω	J = $\pm 5\%$ K = $\pm 10\%$	E = E01 = Lead (Pb)-free skin pack	(Dash number) From 1 to 99 as applicable NI = Non-inductive											

Historical Part Number example: **FSOT-55-25-5 %**

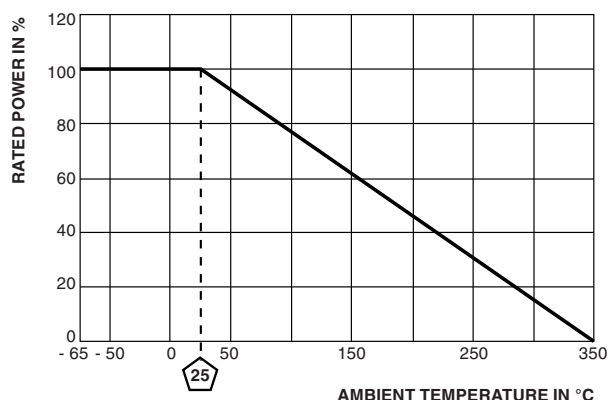
FSOT-20	25 Ω	5 %	
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE	SPECIAL

DIMENSIONS in inches [millimeters]


MODEL	DIMENSIONS in inches [millimeters]				TERMINAL DESIGNATION	
	A	B	C	DISTANCE BETWEEN TERMINALS (REF.)	STANDARD	OPTIONAL
	± 0.063 [1.59]	± 0.063 [1.59]	± 0.031 [0.79]			
FSOT30	1.250 [31.75]	2.500 [63.50]	2.000 [50.8]	0.626 [15.90]	09	16
FSOT40	2.000 [50.8]	3.125 [79.38]	2.750 [69.85]	1.501 [38.13]	09	16
FSOT55	3.500 [88.90]	4.375 [111.13]	4.125 [104.78]	3.001 [76.23]	09	16
FSOT65	4.750 [120.65]	6.000 [152.4]	5.500 [107.98]	4.251 [107.98]	09	16
FSOT75	6.000 [152.4]	7.125 [180.98]	6.750 [171.45]	5.501 [139.73]	09	16

TERMINAL DIMENSIONS


DIMENSIONS	DIMENSIONS in inches [millimeters]	
	STYLE 09	STYLE 16
D	0.188 [4.76]	0.188 [4.76]
E (HOLE DIAMETER)	0.500 [12.70]	0.563 [14.29]
F	0.104 [2.64]	0.050 [1.27]
G	0.020 [0.51]	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

Optional Terminals (Quick Connect): Alloy 42

Terminal Bands: Alloy 42

Part Marking: HEI, 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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