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Vishay Huntington

e3

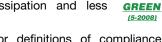
RoHS COMPLIANT

Wirewound Resistors, Industrial Power, Flat



FEATURES

- High temperature silicon coating
- · Mounting accommodations ideally suited to high density packaging
- · Self-stacking hardware for horizontal or vertical placement
- Withstands high vibrations without loosening
- HALOGEN · Mounting hardware functions as a heat sink FREE allowing greater heat dissipation and less derating of stacked units



· Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING P _{25 °C} W	RESISTANCE RANGE Ω ± 5 %	RESISTANCE RANGE Ω ± 10 %	WEIGHT (typical) g
FSOT3014 / FSOT3016	HL-24-09 / HL-24-1	6	1.0 to 11K	0.10 to 11K	20.14
FSOT3015 / FSOT3017	NHL-24-09 / NHL-24-	-16 30	1.0 to 1.2K	1.0 to 1.2K	
FSOT4014 / FSOT4016	HL-40-09 / HL-40-1		1.0 to 26K	0.10 to 26K	30.07
FSOT4015 / FSOT4017	NHL-40-09 / NHL-40-	40	1.0 to 3K	1.0 to 3K	
FSOT5514 / FSOT5516	HL-55-09 / HL-55-1	6	1.0 to 54K	0.10 to 54K	
FSOT5515 / FSOT5517	NHL-55-09 / NHL-55-	-16 55	1.0 to 6.8K	1.0 to 6.8K	51.25
FSOT7014 / FSOT7016	HL-70-09 / HL-70-1	6	1.0 to 77K	0.10 to 77K	
FSOT7015 / FSOT7017	NHL-70-09 / NHL-70-	-16 70	1.0 to 9.4K	1.0 to 9.4K	60.48
FSOT9514 / FSOT9516	HL-95-09 / HL-95-1	6	1.0 to 99.9K	0.10 to 99.9K	
FSOT9515 / FSOT9517	NHL-95-09 / NHL-95-	-16 95	1.0 to12.4K	1.0 to 12.4K	76.51
Dielectric Withstanding Volta Short Time Overload Maximum Working Voltage	- V		n terminal to mount 10 x rated power for (P x R) ^{1/2}	5 s	
Insulation Resistance Ω		1000 MΩ minimum	dry, 100 MΩ minim	um after moisture	test
Operating Temperature Rang	e °C		-55 to +350		
GLOBAL PART NUM Global Part Numbering exa					
			0 R 0		E 1
MODEL DESIGNAT		VALUE TOLERAN	CE PACKAO	GING CODE	SPECIAL
FSOT30 09 (see "Standard 16 Electrical	(Pb)-free K	= decimal = thousand $\mathbf{K} = \pm 10.0 \Omega$		o)-free cell and k pack	(dash numbe (up to 2 digits from 1 to 99

Revision: 20-Sep-16

Specifications"

table above for

additional P/N's)

Document Number: 30337

as applicable

14 = standard,

09 terminal

15 = non-inductive, 09 terminal 16 = standard, 16 terminal 17 = non-inductive, 16 terminal

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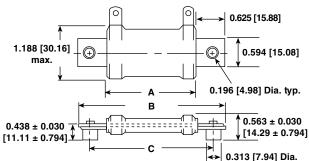
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1K000 = 1 kΩ





DIMENSIONS in inches [millimeters] **TYPE FSOT...XX FLAT STYLE**



	DIMENSIONS in inches [millimeters]					
MODEL	A ± 0.063	B ± 0.063	C ± 0.031	DISTANCE BETWEEN	TERMINAL DESIGNATION	
	[1.59]	[1.59]	[0.79]	TERMINALS (ref.)	STANDARD	OPTIONAL
FSOT30	1.250 [31.75]	2.500 [63.50]	2.000 [50.80]	0.718 [18.24]	09E	16E
FSOT40	2.000 [50.80]	3.250 [82.55]	2.750 [69.85]	1.468 [37.29]	09E	16E
FSOT55	3.500 [88.90]	4.750 [120.65]	4.250 [107.95]	2.968 [75.39]	09E	16E
FSOT70	4.750 [120.65]	6.000 [152.40]	5.500 [139.70]	4.218 [107.14]	09E	16E
FSOT95	6.000 [152.40]	7.250 [184.15]	6.750 [171.45]	5.468 [138.89]	09E	16E

POWER RATING

Vishay FSOT flat resistor wattage ratings are based on mounting horizontally to 10" x 10" x 0.04" [254.0 mm x 254.0 mm x 1.02 mm] steel plate in 25 °C ambient with no air flow.

EXCLUSIVE BRACKET DESIGN

Mounting strap fits snugly through resistor core and is bound against unit by two eccentric spacers. The bracket eliminates expensive cements and improves heat transfer and power handling capabilities.

MATERIAL SPECIFICATIONS

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

Core: ceramic, steatite

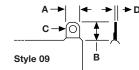
Coating: special high temperature silicone

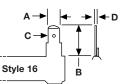
Standard Terminals: model "E" terminals are tinned steel Terminal Bands: steel

Terminal Bands: steel

Part Marking: HEI, model, wattage, value, tolerance, date code

TERMINAL DIMENSIONS





DIMENSION	DIMENSIONS in inches [millimeters]			
DIVIENSION	STYLE 09	STYLE 16		
А	0.188	0.188		
^	[4.76]	[4.76]		
в	0.500	0.563		
В	[12.70]	[14.29]		
с	0.104	0.050		
C	[2.64]	[1.27]		
р	0.020	0.020		
D	[0.51]	[0.51]		

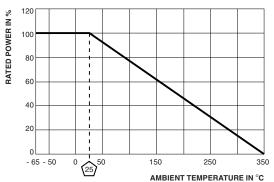
TERMINAL FINISH

"E" Finish - 100 % Sn coated steel.

NON-INDUCTIVE

Models of equivalent physical and electrical specifications are available with non-inductive (Aryton-Perry) winding. For non-inductive models, maximum resistance values are lower, see STANDARD ELECTRICAL SPECIFICATIONS table.

DERATING



Derating is required for ambient temperatures above 25 °C per the above graph.

PERFORMANCE				
TEST	CONDITIONS OF TEST	TEST LIMITS		
Thermal Shock	Rated power applied until thermally stable, then a minimum of 15 min at -55 °C	\pm (2.0 % + 0.05 Ω) ΔR		
Short Time Overload	10x rated power for 5 s	\pm (2.0 % + 0.05 Ω) ΔR		
Dielectric Withstanding Voltage	1000 V _{RMS} , 1 min	\pm (0.1 % + 0.05 Ω) Δ <i>R</i>		
Low Temperature Storage	-55 °C for 24 h	\pm (2.0 % + 0.05 Ω) ΔR		
High Temperature Exposure	250 h at + 350 °C	\pm (2.0 % + 0.05 Ω) ΔR		
Moisture Resistance	MIL-STD-202 Method 106, 7b not applicable	\pm (2.0 % + 0.05 Ω) Δ <i>R</i>		
Shock, Specified Pulse	MIL-STD-202 Method 213, 100 g's for 6 ms, 10 shocks	\pm (0.2 % + 0.05 Ω) ΔR		
Vibration, High Frequency	Frequency varied 10 Hz to 2000 Hz, 20 g peak, 2 directions 6 h each	\pm (0.2 % + 0.05 Ω) ΔR		
Load Life	1000 h at rated power, + 25 °C, 1.5 h "ON", 0.5 h "OFF"	\pm (3.0 % + 0.05 Ω) ΔR		

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Document Number: 30337

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 RDSF010015R00JDBNI
 RER60F34R8RC02
 RER60F51R1MC0230
 RER65F1R50PC02
 RER70F62R5PC02
 VK100NA-200
 VK100NA-500

 VK100NA-750
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