

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
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
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 / FSOT70 ⁽¹⁾ FSOT65-NI / FSOT70-NI ⁽¹⁾	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 / FSOT95 ⁽¹⁾ FSOT75-NI / FSOT95-NI ⁽¹⁾	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

Note

- ⁽¹⁾ The preferred Models are the FSOT70 and FSOT95. FSOT65 and FSOT75 are being shown as they have historically been used for these two wattages.

TECHNICAL SPECIFICATIONS

PARAMETER	UNIT	FSOT RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°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	°C	-55 to +350



GLOBAL PART NUMBER INFORMATION

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

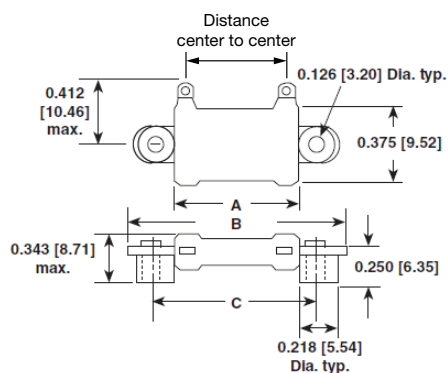
F	S	O	T	5	5	0	9	E	2	5	R	0	0	J	E		
GLOBAL MODEL (6 digits)						TERMINAL DESIGNATION (2 digits)		TERMINAL FINISH (1 digit)		VALUE (5 digits)		TOLERANCE (1 digit)		PACKAGING CODE (1 digit)		SPECIAL (up to 2 digits)	
(see Standard Electrical Specifications Global Model column for options)						09 11 16		E = lead (Pb)-free		R = decimal K = thousand 1R500 = 1.5 Ω 1K500 = 1.5 k Ω		J = $\pm 5\%$ K = $\pm 10\%$		E = lead (Pb)-free cell and bulk pack		(dash number) from 1 to 99 as applicable CT = center tap NI = non-inductive	

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

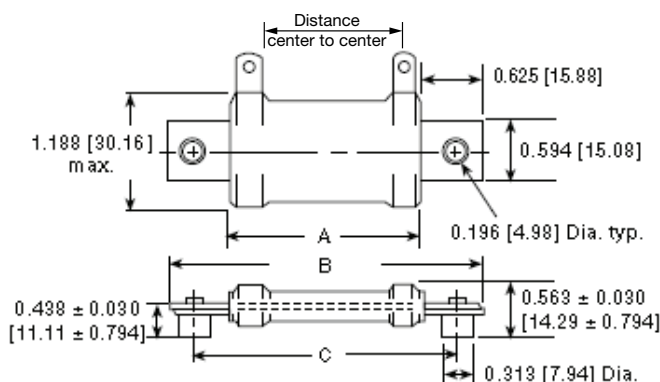
FSOT-20	25 Ω	5 %	
HISTORICAL MODEL	RESISTANCE VALUE	TOLERANCE	SPECIAL

DIMENSIONS in inches [millimeters]

FSOT10 / FSOT15 / FSOT30



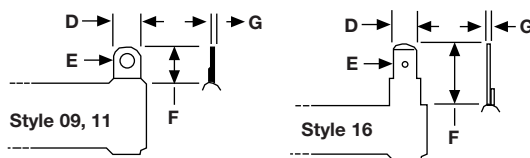
FSOT30 / FSOT40 / FSOT55 / FSOT65 / FSOT70 / FSOT75 / FSOT95



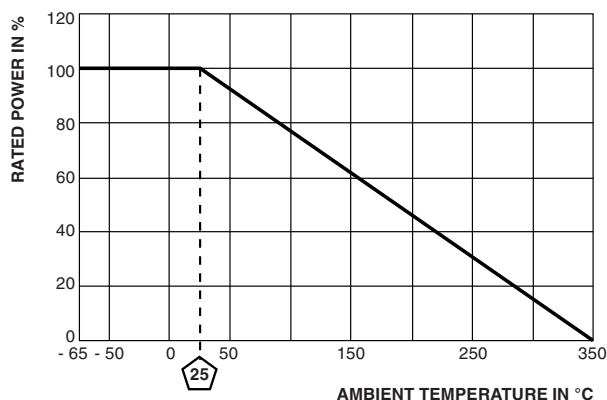
MODEL	A ± 0.063 [1.59]	B ± 0.063 [1.59]	C ± 0.031 [0.79]	DISTANCE CENTER TO CENTER (REF.)	TERMINAL DESIGNATION	
					STANDARD	OPTIONAL (QUICK CONNECT)
FSOT10	0.750 [19.05]	1.312 [33.32]	1.000 [25.40]	0.531 [13.49]	11	-
FSOT15	1.000 [25.40]	1.562 [39.67]	1.250 [31.75]	0.781 [19.84]	11	-
FSOT20	2.062 [52.37]	2.625 [66.68]	2.312 [58.72]	1.843 [46.81]	11	-
FSOT30	1.250 [31.75]	2.500 [63.50]	2.000 [50.8]	0.906 [23.01]	09	16
FSOT40	2.000 [50.8]	3.250 [82.55]	2.750 [69.85]	1.656 [42.06]	09	16
FSOT55	3.500 [88.90]	4.750 [120.65]	4.250 [107.95]	3.156 [80.16]	09	16
FSOT65 / FSOT70 ⁽¹⁾	4.750 [120.65]	6.000 [152.4]	5.500 [139.7]	4.406 [111.91]	09	16
FSOT75 / FSOT95 ⁽¹⁾	6.000 [152.4]	7.250 [184.15]	6.750 [171.45]	5.656 [143.66]	09	16

Note

⁽¹⁾ The preferred Models are the FSOT70 and FSOT95. FSOT65 and FSOT75 are being shown as they have historically been used for these two wattages.

TERMINAL DIMENSIONS


DIMENSIONS	STYLE 09	STYLE 11	STYLE 16
D	0.188 [4.76]	0.125 [3.18]	0.188 [4.76]
E (HOLE DIAMETER)	0.106 [2.69]	0.081 [2.10]	0.050 [1.27]
F	0.438 [11.13]	0.235 [5.97]	0.563 [14.30]
G	0.020 [0.51]	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.



Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Material Category Policy

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as RoHS-Compliant fulfill the definitions and restrictions defined under Directive 2011/65/EU of The European Parliament and of the Council of June 8, 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) - recast, unless otherwise specified as non-compliant.

Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.

Vishay Intertechnology, Inc. hereby certifies that all its products that are identified as Halogen-Free follow Halogen-Free requirements as per JEDEC JS709A standards. Please note that some Vishay documentation may still make reference to the IEC 61249-2-21 definition. We confirm that all the products identified as being compliant to IEC 61249-2-21 conform to JEDEC JS709A standards.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9