

## Wirewound Resistor, Industrial Power, Vitreous Coated, Miniature Flat


**FEATURES**

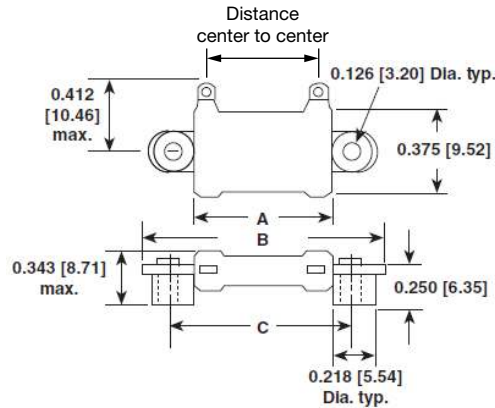
- High temperature vitreous coating
- Mounting accommodations ideally suited to high density packaging
- Available in non-inductive style (special "NI") with Ayrton-Perry winding
- Self-stacking hardware for horizontal or vertical placement
- Mounting hardware functions as a heat sink allowing greater 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

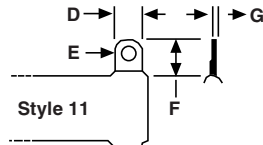
STANDARD ELECTRICAL SPECIFICATIONS					
GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25\text{ }^\circ\text{C}}$ W	RESISTANCE RANGE $\Omega$ $\pm 5\%$	RESISTANCE RANGE $\Omega$ $\pm 10\%$	WEIGHT (typical) g
FVOT10 FVOT10-NI	FVOT-10 FVOT10-NI	10	1.0 to 15K 1.0 to 1.8K	0.10 to 15K 1.0 to 1.8K	0.41
FVOT15 FVOT15-NI	FVOT-15 FVOT15-NI	15	1.0 to 26K 1.0 to 3.6K	0.10 to 26K 1.0 to 3.6K	0.47
FVOT20 FVOT20-NI	FVOT-20 FVOT20-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	FVOT RESISTOR CHARACTERISTICS
Temperature Coefficient	ppm/°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	$V_{AC}$	1000, from terminal to mounting hardware
Maximum Working Voltage	V	$(P \times R)^{1/2}$
Operating Temperature Range	°C	-55 to +350

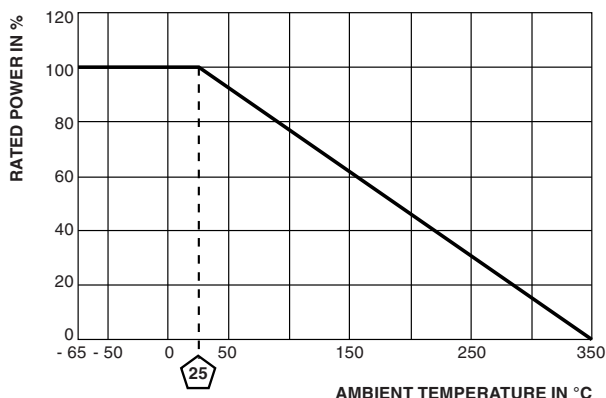
GLOBAL PART NUMBER INFORMATION						
Global Part Numbering example: <b>FVOT2011E25R00JE</b> (visit <a href="http://www.vishay.com">www.vishay.com</a> SAP parts manual for all options)						
F	V	O	T	2	0	1 1 E 2 5 R 0 0 J E
GLOBAL MODEL (6 digits)	TERMINAL DESIGNATION (2 digits)	TERMINAL FINISH (1 digit)	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: <b>FVOT-20-25-5</b> %						
FVOT-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
FVOT10	0.750 [19.05]	1.312 [33.32]	1.000 [25.40]	0.531 [13.49]	11
FVOT15	1.000 [25.40]	1.562 [39.67]	1.250 [31.75]	0.781 [19.84]	11
FVOT20	2.062 [52.37]	2.552 [64.83]	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 or cordierite

**Coating:** special high temperature vitreous

**Standard Terminals:** tinned 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.

Hyperlinks included in this datasheet may direct users to third-party websites. These links are provided as a convenience and for informational purposes only. Inclusion of these hyperlinks does not constitute an endorsement or an approval by Vishay of any of the products, services or opinions of the corporation, organization or individual associated with the third-party website. Vishay disclaims any and all liability and bears no responsibility for the accuracy, legality or content of the third-party website or for that of subsequent links.

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.