

Wirewound Resistors, Industrial Power, Silicone Coated, Adjustable Tubular



FEATURES

- High temperature silicone coating
- Complete welded construction
- Tight tolerance of 5 % for values above 1 Ω
- Excellent stability in operation (< 3 % change in resistance)
- Material categorization:
for definitions of compliance please see www.vishay.com/doc?99912



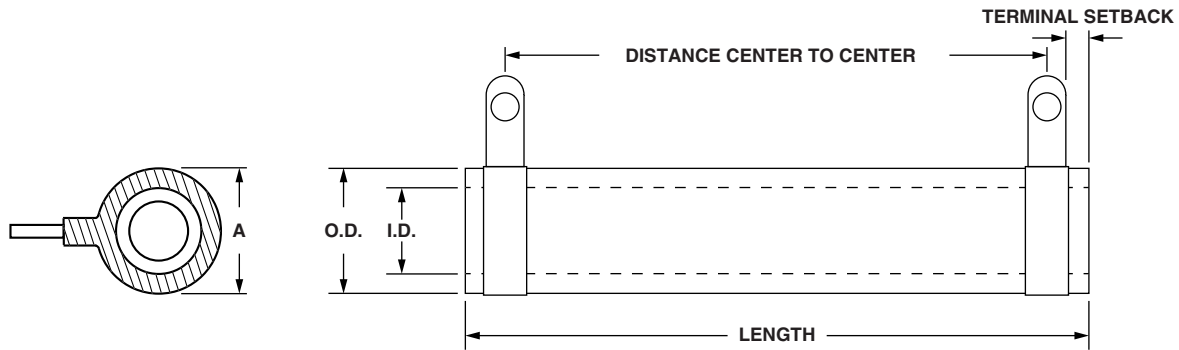
RoHS
COMPLIANT
HALOGEN
FREE
GREEN
(5-2008)

STANDARD ELECTRICAL SPECIFICATIONS

GLOBAL MODEL	HISTORICAL MODEL	POWER RATING $P_{25\text{ }^{\circ}\text{C}}$ W	RESISTANCE RANGE Ω ± 5 %	RESISTANCE RANGE Ω ± 10 %	WEIGHT (typical) g
AST010	AST-10	12	1.0 to 10.6K	1.0 to 10.6K	6.69
AST012	AST-12	12	1.0 to 10.6K	1.0 to 10.6K	6.69
AST020	AST-20	20	1.0 to 18K	1.0 to 18K	12.57
AST20A	HLA-15	15	1.0 to 60K	0.10 to 60K	8.64
AST025	AST-25	25	1.0 to 26K	1.0 to 26K	20.72
AST25A	AST-25A	30	1.0 to 30K	1.0 to 30K	20.72
AST25B	AST-25B	30	1.0 to 24K	1.0 to 24K	14.25
AST050	AST-50	50	1.0 to 54K	1.0 to 54K	42.08
AST50A	AST-50A	60	1.0 to 75K	1.0 to 75K	65.64
AST50B	AST-50B	70	1.0 to 84.3K	1.0 to 84.3K	64.82
AST075	AST-75	75	1.0 to 85.5K	1.0 to 85.5K	106.37
AST75A	AST-75A	90	1.0 to 114K	1.0 to 114K	183.82
AST080	HLA-80	80	1.0 to 111K	-	121.58
AST100	AST-100	100	1.0 to 131K	1.0 to 131K	91.37
AST130	AST-130	130	1.0 to 192K	1.0 to 192K	192.36
AST160	AST-160	175	1.0 to 398K	1.0 to 398K	250.8
AST175	HLA-175	175	1.0 to 398K	1.0 to 398K	250.8
AST200	AST-200	225	1.0 to 337K	1.0 to 337K	309.97
AST225	AST-225	225	1.0 to 337K	1.0 to 337K	309.97



GLOBAL PART NUMBER INFORMATION																	
Global Part Numbering Example: AST0250625R00JE (visit www.vishay.net SAP parts manual for all options)																	
A	S	T	0	2	5	0	6	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)	05 06 14 15 20 FC = ferrule cap		E = lead (Pb)-free	R = decimal K = thousand 1R500 = 1.5 Ω 1K500 = 1.5 kΩ		J = ± 5 % K = ± 10 %	E = lead (Pb)-free cell and bulk pack		(dash number) from 1 to 99 as applicable 91 = 100 style horizontal high bracket 92 = 200 style push-in bracket 93 = 300 style thru-bolt bracket CT = center tap NI = non-inductive NP = non-inductive + 92 style push-in bracket NH = non-inductive + 91 style horizontal bracket NV = non-inductive + style vertical bracket								
Historical Part Number Example: AST-25-25-5 %																	
AST-25		25 Ω		5 %													
HISTORICAL MODEL		RESISTANCE VALUE		TOLERANCE		SPECIAL											

DIMENSIONS in inches (millimeters)


MODEL	A (MAX.)	CORE DIMENSIONS				TERMINAL DESIGNATION			SLIDER MODEL NUMBER	
		LENGTH	O.D. ± 0.031 (0.79)	I.D. ± 0.031 (0.79)	TERMINAL SETBACK ± 0.031 (0.79)	DISTANCE BETWEEN TERMINALS (REF.)	DISTANCE CENTER TO CENTER QUICK CONNECT (REF.)	STANDARD		OPTIONAL (QUICK CONNECT)
AST010 AST012	0.406 (10.31)	1.750 (44.45)	0.313 (7.95)	0.188 (4.78)	0.094 (2.39)	1.375 (34.93)	1.312 (33.32)	05	14	70
AST020	0.563 (14.30)	2.000 (50.8)	0.438 (11.13)	0.260 (6.60)	0.094 (2.39)	1.625 (41.28)	1.562 (39.67)	02	14	70
AST20A	0.563 (14.30)	2.000 (50.8)	0.438 (11.11)	0.313 (7.94)	0.094 (2.38)	1.625 (41.28)	1.625 (41.28)	02	14	70
AST025	0.668 (17.48)	2.000 (50.8)	0.563 (14.30)	0.313 (7.95)	0.094 (2.39)	1.562 (39.67)	1.500 (38.10)	06	15	71
AST25A	0.906 (23.01)	2.000 (50.8)	0.750 (19.05)	0.500 (12.7)	0.094 (2.39)	1.562 (39.67)	1.500 (38.10)	06	15	72
AST25B	0.770 (19.56)	2.000 (50.8)	0.625 (15.88)	0.453 (11.51)	0.094 (2.39)	1.562 (39.67)	-	06	15	71
AST050	0.688 (17.48)	4.000 (101.6)	0.563 (14.30)	0.313 (7.95)	0.094 (2.39)	3.562 (90.47)	3.500 (88.90)	06	15	71
AST50A	0.906 (23.01)	4.000 (101.6)	0.750 (19.05)	0.500 (12.70)	0.062 (1.57)	3.626 (92.10)	3.563 (90.51)	06	15	71
AST50B	0.906 (23.01)	4.500 (114.3)	0.750 (19.05)	0.547 (13.89)	0.125 (3.18)	4.000 (101.60)	3.938 (100.01)	06	15	72
AST075	0.688 (17.48)	6.000 (152.4)	0.563 (14.30)	0.313 (7.95)	0.094 (2.39)	5.562 (141.27)	4.500 (114.29)	06	15	71
AST75A	0.906 (23.01)	6.000 (152.4)	0.750 (19.05)	0.500 (12.70)	0.094 (2.39)	5.562 (141.27)	5.500 (139.70)	06	15	72
AST080	1.313 (33.34)	4.000 (101.6)	1.125 (28.58)	0.750 (19.05)	0.219 (5.56)	3.187 (80.95)	3.250 (82.54)	20	15	73
AST100	0.906 (23.01)	6.500 (165.1)	0.750 (19.05)	0.500 (12.70)	0.125 (3.18)	6.000 (152.40)	5.938 (150.81)	06	15	72
AST130	1.313 (33.35)	6.500 (165.1)	1.125 (28.58)	0.750 (19.05)	0.282 (7.16)	5.561 (141.25)	5.624 (142.84)	20	15	73
AST160	1.313 (33.35)	8.500 (215.9)	1.125 (28.58)	0.750 (19.05)	0.267 (6.78)	7.593 (192.86)	4.656 (118.25)	20	15	73
AST175	1.313 (33.34)	8.500 (215.9)	1.125 (28.58)	0.750 (19.05)	0.219 (5.56)	7.687 (195.25)	7.750 (196.85)	20	15	73
AST200 AST225	1.313 (33.35)	10.500 (266.7)	1.125 (28.58)	0.750 (19.05)	0.266 (6.76)	9.593 (243.66)	9.656 (245.26)	20	15	73

TERMINAL DIMENSIONS in inches (millimeters)

DIMENSIONS	TERMINAL STYLE					
	20	02	05	06	14	15
WIDTH A	0.375 (9.53)	0.188 (4.76)	0.188 (4.76)	0.250 (6.35)	0.188 (4.76)	0.250 (6.35)
HEIGHT B	0.594 (15.09)	0.413 (10.49)	0.583 (14.81)	0.500 (12.70)	0.583 (14.81)	0.657 (16.69)
DIAMETER C	0.204 (5.18)	0.133 (3.38)	0.133 (3.38)	0.172 (4.36)	0.050 (1.27)	0.065 (1.65)
THICKNESS D	0.032 (0.81)	0.020 (0.51)	0.020 (0.51)	0.020 (0.51)	0.020 (0.51)	0.032 (0.81)

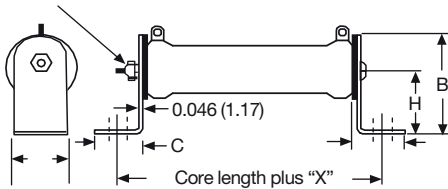
Note

- Dimensions are for reference only. Dimensions indicated are without coating

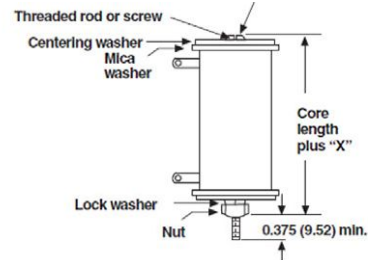
AVT SLIDERS-DIMENSIONS in inches (millimeters)						
	GLOBAL PART NUMBER ⁽¹⁾ (RoHS-COMPLIANT)	GLOBAL PART NUMBER FOR EXTRA SLIDERS	SLIDER MODEL TYPE	DIMENSIONS		
				WIDTH	HEIGHT	HOLE DIAMETER
	75008602E29	AST010, AST020	70	0.187 (4.75)	0.516 (13.11)	0.125 (3.18)
	75008603E29	AST025, AST25B, AST050, AST50A, AST075	71	0.250 (6.35)	0.719 (18.26)	0.141 (3.58)
	75008604E29	AST25A, AST50B, AST75A, AST100	72	0.250 (6.35)	0.844 (21.44)	0.141 (3.58)
	75008605E29	AST130, AST160, AST200, AST225	73	0.312 (7.92)	0.797 (20.24)	0.170 (4.32)

Note

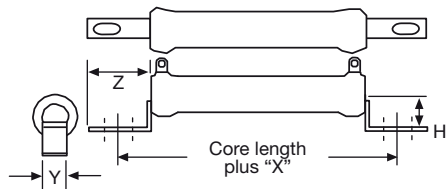
⁽¹⁾ Order HEI slider with global part number

MOUNTING HARDWARE FOR AVT PRODUCTS - Dimensions in inches (millimeters)
91 = 100 Style Horizontal 1 High Bracket


BRACKET TYPE	X	Y	Z	H	MOUNTING SLOT	C	B
101	1.063 (26.99)	0.500 (12.70)	0.950 (24.13)	1.000 (25.40)	0.219 x 0.438 (5.56 x 11.11)	0.750 (19.05)	1.375 (34.93)
102	1.063 (26.99)	0.750 (19.05)	0.859 (21.83)	1.250 (31.75)	0.219 x 0.438 (5.56 x 11.11)	0.750 (19.05)	1.750 (44.45)
103	1.063 (26.99)	1.250 (31.75)	1.000 (25.40)	1.500 (38.10)	0.281 x 0.563 (7.14 x 14.29)	0.927 (23.55)	2.125 (53.98)

93 = 300 Style Thru-Bolt Bracket


BRACKET TYPE	X (APPROXIMATE)	THREAD
301	0.373 (9.47)	8 to 32
302	0.271 (6.88)	10 to 32
303	0.463 (11.76)	1/4 to 20

92 = 200 Style Push-In Bracket


BRACKET TYPE	X	H	Y	Z	HOLE (DIA.)
202	0.478 (12.14)	0.250 (6.35)	0.125 (3.175)	0.375 (9.53)	0.170 (4.32)
203	0.583 (14.80)	0.580 (14.73)	0.188 (4.78)	0.460 (11.68)	0.115 (2.92)
204	0.700 (17.78)	0.578 (14.68)	0.250 (6.35)	0.500 (12.70)	0.156 (3.96)
205	0.846 (21.49)	0.800 (20.32)	0.375 (9.53)	0.600 (15.24)	0.343 x 0.213 (8.71 x 5.46)
206	0.846 (21.49)	0.800 (20.62)	0.375 (9.53)	0.600 (15.24)	0.343 x 0.213 (8.71 x 5.46)
207	0.700 (17.78)	1.125 (28.58)	0.500 (12.70)	0.687 (17.45)	0.250 x 0.188 (6.35 x 4.78)
208	0.846 (21.49)	0.800 (20.62)	0.375 (9.53)	0.600 (15.24)	0.343 x 0.213 (8.71 x 5.46)

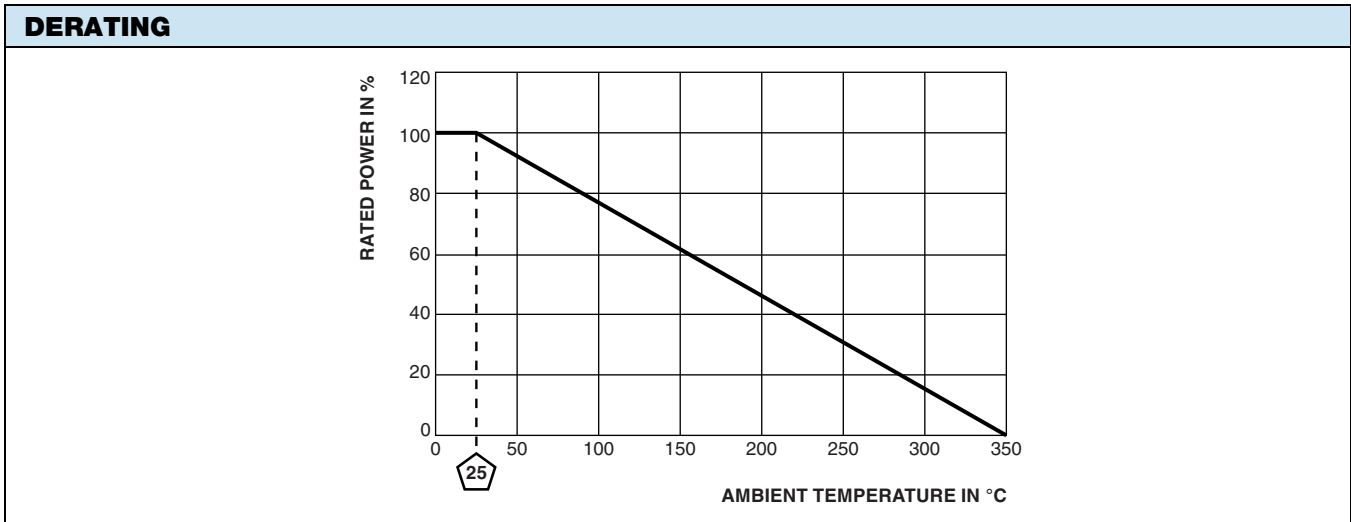
MOUNTING HARDWARE

GLOBAL MODEL	AVAILABLE BRACKET TYPES BY MODEL		
	91 = 100 STYLE HORIZONTAL 1 HIGH BRACKET	92 = 200 STYLE PUSH-IN BRACKET	93 = 300 STYLE THRU-BOLT BRACKET
AST010	101	202	301
AST012	101	202	301
AST020	101	N/A	301
AST20A	101	203	301
AST025	102	204	301
AST25A	102	206	302
AST25B	102	205	301
AST050	102	204	302
AST50A	102	206	302
AST50B	102	208	302
AST075	102	204	301
AST75A	102	206	302
AST080	103	207	303
AST100	102	206	302
AST130	103	207	302
AST160	103	207	303
AST175	103	207	303
AST200	103	207	303
AST225	103	207	303



TECHNICAL SPECIFICATIONS		
PARAMETER	UNIT	RESISTOR CHARACTERISTICS
Power Rating	W	12 to 225
Resistance Range	Ω	1 to 398K
Resistance Tolerance	%	5, 10
Temperature Coefficient	ppm/ $^{\circ}$ C	± 260 for 20 Ω and above, ± 400 for 1 Ω to 19.99 Ω
Operating Temperature	$^{\circ}$ C	-55 $^{\circ}$ C to 350 $^{\circ}$ C
Temperature Rise	$^{\circ}$ C	325 $^{\circ}$ C above an ambient of 25 $^{\circ}$ C
Maximum Altitude	f.a.s.l.	10 000
Short-Term Overload	-	10x rated power for 5 s
Surge Windings		Available
Maximum Working Voltage	-	$(P \times R)^{0.5}$
Insulation Resistance	Ω	1M
Dielectric Voltage	V _{RMS}	1000 V _{AC} from terminal to mounting hardware
Creepage		Varies by wattage, see "Terminal Setback" in Dimensions table
Terminal Sleeves		n/a
Inductance	μ H	Varies by wattage and resistance
Non-Inductive Winding		Available
Terminal Strength	lb	10 lbs
Electrical or Mechanical Customization		Contact factory: ww2dresistors@vishay.com

MATERIAL SPECIFICATIONS	
Element	Copper-nickel alloy or nickel-chrome alloy, depending on resistance value
Core	Cordierite, steatite
Coating	Special high temperature silicone
Standard Terminals	Tinned alloy 42
Optional Terminals	Alloy 42
Terminal Bands	Alloy 42
Part Marking	HEI, model, wattage, value, tolerance, date code





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.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Wirewound Resistors - Chassis Mount](#) category:

Click to view products by [Vishay](#) manufacturer:

Other Similar products are found below :

[HD300HLR71J](#) [RER50F18R7RC02](#) [RER50F7R50RC02](#) [RER75F4991MC02](#) [RH0055R000FC02W09](#) [2-1623821-6](#) [FVT200-500](#)
[RDSF010015R00JDBNI](#) [RER60F34R8RC02](#) [RER60F51R1MC0230](#) [RER65F1R50PC02](#) [RER70F62R5PC02](#) [VK100NA-200](#) [VK100NA-50](#)
[VK100NA-750](#) [40/70MJ2K00BE](#) [VP10FA-3K](#) [VP50KA-20K](#) [VPR10F1](#) [VPR10F-13.5K](#) [VPR10F-4500](#) [VPR10F-4.5K](#) [VPR10F-4K](#)
[VPR10F-700](#) [VPR10F-7.5K](#) [VPR20H150](#) [VPR5F-22.5K](#) [L75J1K0E](#) [VRH320 3K3 K](#) [RER65F2940PC02](#) [RER65F4R99RC02](#)
[RER75F1R00RC02](#) [RER65FR100RC02](#) [VPR5F-600](#) [VPR5F250](#) [VPR10F-8K](#) [VPR10F-6K](#) [VPR10F225](#) [VPR10F-1.75K](#) [VPR10F-1.25K](#)
[VPR10F-125](#) [VPR10F10](#) [VP50KA-12K](#) [VP50KA-100K](#) [VP25KA-5000](#) [VK100NA250](#) [VK100NA-15](#) [850J5R0E-B](#) [L100J150E-MT1](#)
[L50J500E-MT1](#)