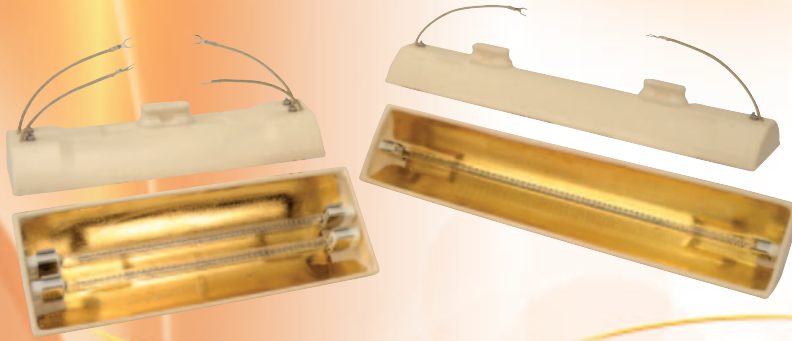


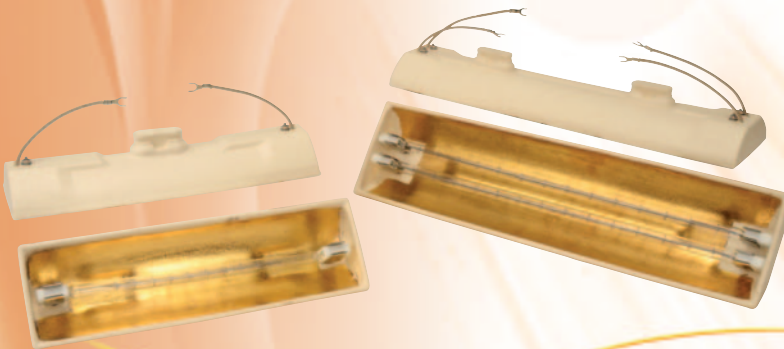


Infrared Heaters



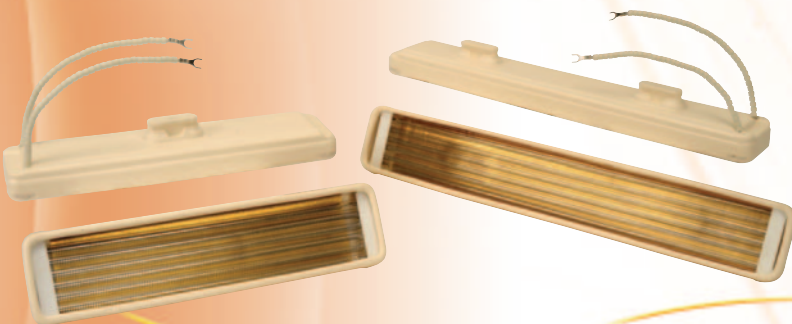
Series VSA

- *Short Wave IR*
- *2500K Filament Temperature*
- *Tungsten in Halogen-Filled Lamp*
- *150 – 2500 Watts*
- *See Page 7-59*



Series VSC

- *Medium Wave IR*
- *1500K Filament Temperature*
- *Star-Wound Tungsten in Evacuated Lamp*
- *75 – 1300 Watts*
- *See Page 7-60*



Series VSR

- *Medium Wave IR*
- *950K Wire Temperature*
- *Fe-Cr-Al Resistance Wire in Air*
- *125 – 1500 Watts*
- *See Page 7-61*

***VS Glow Is the Newest and Most Technically Advanced
Infrared Heater that Generates Instantaneous Heat***

VSA Series High Density Short Wave

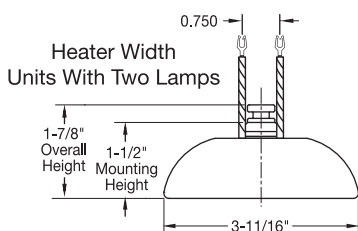
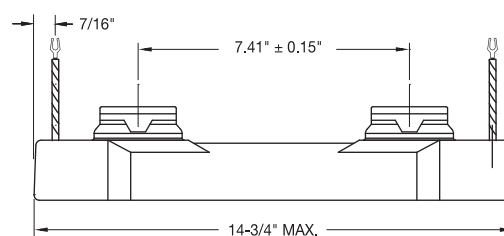
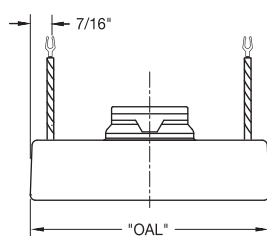
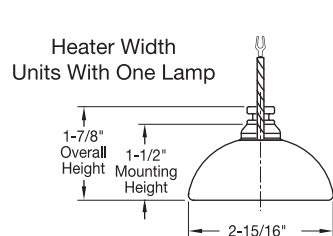


Design Features

- * Gold Coated Ceramic Reflector
- * Short Wave Infrared Radiation up to 220 watts per linear inch
- * Fast Response, Immediate ON/OFF, Time: 20-40 seconds for full heat-up
- * All Ceramic Housing Construction
- * Standard Lamp Voltages: 120 & 230/240
- * All units are double-ended construction

Typical Semiconductor Industry Applications

- ◆ Etching ◆ Rapid Thermal Process ◆ Strip Removal
- ◆ Epitaxy ◆ Chemical Vapor Deposit



Heater Length
Series 122, 183 and 245

Heater Length
Series 367



One-Piece Mounting Clips Standard
Two-Piece Wave Mounting Clips Optional

See page 7-14 for details.

Standard (Non-Stock) VSA Series

VS Glow heaters listed have 10" mica insulated leads and a one-piece spring clip for mounting.

Series	Maximum Overall Length		Heated Length		Width		Wattage	Voltage	Part Number	Number of Lamps	Replacement Lamp Part Number
	(in)	(mm)	(in)	(mm)	(in)	(mm)					
122	4.90	124.5	1.77	45	2.89	73.5	150	120	VSA00322	1	LMP00056
					2.89	73.5	225	120	VSA00323	1	LMP00057
					2.89	73.5	275	120	VSA00324	1	LMP00058
					3.67	93.1	450	120	VSA00325	2	LMP00057
183	7.36	187.0	4.17	106	2.89	73.5	300	120	VSA00326	1	LMP00059
					2.89	73.5	475	120	VSA00327	1	LMP00060
					2.89	73.5	600	120	VSA00328	1	LMP00061
					3.67	93.1	950	120	VSA00329	2	LMP00060
245	9.82	249.5	6.65	168	2.89	73.5	500	120	VSA00330	1	LMP00062
					2.89	73.5	750	120	VSA00331	1	LMP00063
					2.89	73.5	1000	120	VSA00332	1	LMP00064
					3.67	93.1	1500	120	VSA00333	2	LMP00063
					2.89	73.5	500	230/240	VSA00334	1	LMP00065
					2.89	73.5	750	230/240	VSA00335	1	LMP00066
					2.89	73.5	1000	230/240	VSA00336	1	LMP00067
					3.67	93.1	1500	230/240	VSA00337	2	LMP00066
367	14.74	374.5	11.38	289	2.89	73.5	800	120	VSA00338	1	LMP00068
					2.89	73.5	1250	120	VSA00339	1	LMP00069
					2.89	73.5	1500	120	VSA00340	1	LMP00070
					3.67	93.1	2500	120	VSA00341	2	LMP00069
					2.89	73.5	800	230/240	VSA00342	1	LMP00071
					2.89	73.5	1250	230/240	VSA00343	1	LMP00072
					2.89	73.5	1500	230/240	VSA00344	1	LMP00073
					3.67	93.1	2500	230/240	VSA00345	2	LMP00072

Radiant Process Heaters

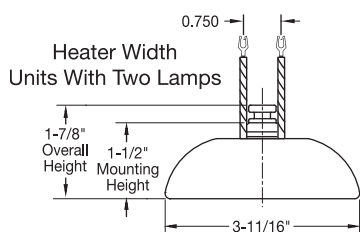
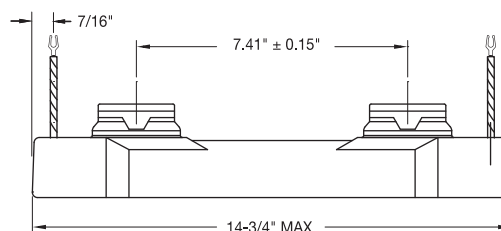
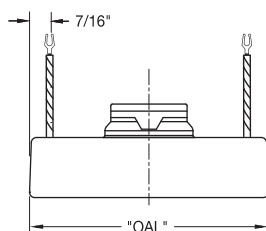
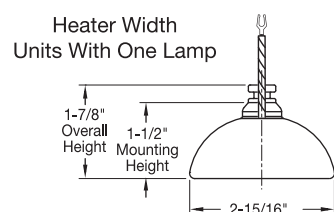
VS Glow Infrared Heaters



VSC Series High Density Medium Wave

Design Features

- * Gold Coated Ceramic Reflector
- * Medium wave Infrared Radiation up to 116 watts per linear inch
- * Fast Response, Immediate ON/OFF, Time: 20-40 seconds for full heat-up
- * All Ceramic Housing Construction
- * Standard lamp voltages: 120 & 230/240
- * All units are double-ended construction



One-Piece Mounting Clips Standard
Two-Piece Wave Mounting Clips Optional
 See page 7-14 for details.

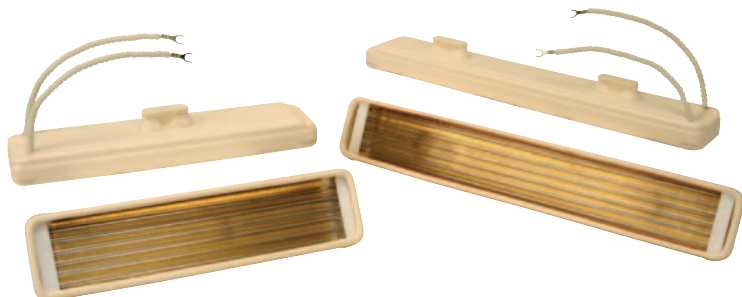
Standard (Non-Stock) VSC Series

VS Glow heaters listed have 10" mica insulated leads and a one-piece spring clip for mounting.

Series	Maximum Overall Length		Heated Length		Width		Wattage	Voltage	Part Number	Number of Lamps	Replacement Lamp Part Number
(in)	(mm)	(in)	(mm)	(in)	(mm)						
122	4.90	124.5	1.77	45	3.67	93.1	250	120	VSC00138	2	LMP00075
183	7.36	187.0	4.17	106	2.89	73.5	150	120	VSC00139	1	LMP00077
					2.89	73.5	250	120	VSC00140	1	LMP00078
					2.89	73.5	300	120	VSC00141	1	LMP00079
					3.67	93.1	500	120	VSC00142	2	LMP00078
					2.89	73.5	250	120	VSC00143	1	LMP00080
245	9.82	249.5	6.65	168	2.89	73.5	400	120	VSC00144	1	LMP00081
					2.89	73.5	500	120	VSC00145	1	LMP00082
					3.67	93.1	800	120	VSC00146	2	LMP00081
					2.89	73.5	250	230/240	VSC00147	1	LMP00083
					2.89	73.5	400	230/240	VSC00148	1	LMP00084
					2.89	73.5	500	230/240	VSC00149	1	LMP00085
					3.67	93.1	800	230/240	VSC00150	2	LMP00084
					2.89	73.5	400	120	VSC00151	1	LMP00086
367	14.74	374.5	11.38	289	2.89	73.5	650	120	VSC00152	1	LMP00087
					2.89	73.5	800	120	VSC00153	1	LMP00088
					3.67	93.1	1300	120	VSC00154	2	LMP00087
					2.89	73.5	400	230/240	VSC00155	1	LMP00089
					2.89	73.5	650	230/240	VSC00156	1	LMP00090
					2.89	73.5	800	230/240	VSC00157	1	LMP00091
					3.67	93.1	1300	230/240	VSC00158	2	LMP00090

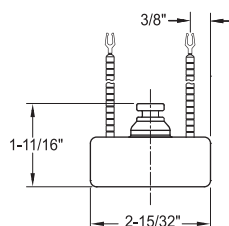


VSR Series Medium Wave

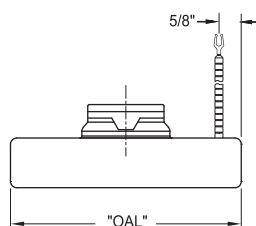


Design Features

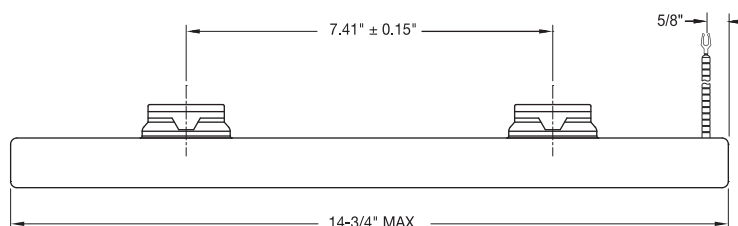
- * All Ceramic Housing Construction
- * Capable of delivering medium and long wavelengths in any voltage from 120 to 480 volts
- * Available in clear tubes
- * 24-K gold reflective surface
- * Optional Type K thermocouple available



Heater Width



Heater Length
Series 122, 183 and 245



Heater Length Series 367



One-Piece Mounting Clips Standard
Two-Piece Wave Mounting Clips Optional

See page 7-14 for details.

Standard (Non-Stock) VSR Series

VS Glow heaters listed have 6" ceramic bead insulated leads with #8-10 spade terminals and a one-piece spring clip for mounting.

Series	Maximum Overall Length (in) (mm)		Wattage	Voltage	Part Number
122	4.90	124.5	125	230	VSR20001
			200	230	VSR20002
			250	230	VSR20003
			325	230	VSR20004
			500	230	VSR20005
183	7.36	187.0	185	230	VSR30001
			300	230	VSR30002
			375	230	VSR30003
			500	230	VSR30004
			750	230	VSR30005
245	9.82	249.5	250	230	VSR10001
			400	230	VSR10002
			500	230	VSR10003
			650	230	VSR10004
			1000	230	VSR10005
367	14.74	374.5	375	230	VSR40001
			600	230	VSR40002
			750	230	VSR40003
			1000	230	VSR40004
			1500	230	VSR40005