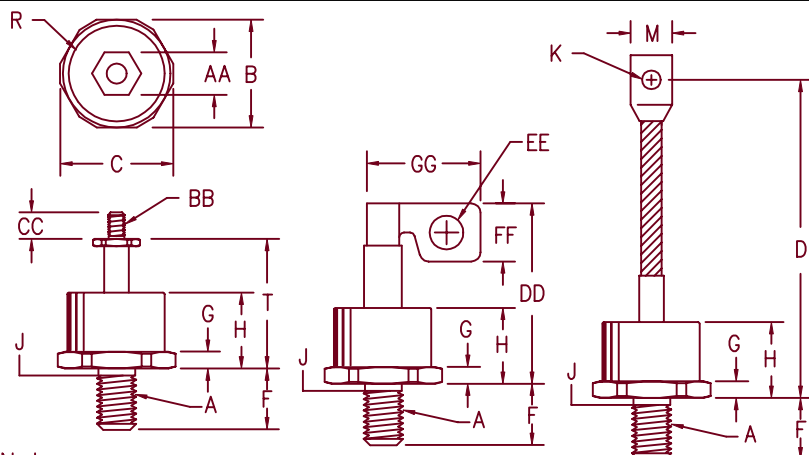


# Silicon Power Rectifier S/R43 Series



## Notes:

1. 3/8-24 UNF-3A
2. Full threads within 2 1/2 threads
3. 1/4-28 UNF-2B
4. Reverse polarity: Stud is Anode

Microsemi Catalog Number	JEDEC Numbers			Peak Reverse Voltage
	1N2436			50V
*S4310	1N2437	1N3288A	1N4587	100V
	1N2438			150V
*S4320	1N2439	1N3289A	1N4588	200V
	1N2440			250V
*S4330	1N2441	1N3290A	1N4589	300V
	1N2442			350V
*S4340	1N2443	1N3291A	1N4590	400V
*S4350	1N2444	1N3292A	1N4591	500V
*S4360	1N2445	1N3293A	1N4592	600V
*S4380		1N3294A	1N4593	800V
*S43100		1N3295A	1N4594	1000V
*S43120		1N3296A	1N4595	1200V
*S43140		1N3297A	1N4596	1400V
*S43160				1600V

\*For Reverse Polarity, change S to R  
For 1N types, add R suffix for Reverse Polarity  
Add the suffix TS to the part number if Top Stud; F for Flag

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1
B	1.050	1.060	26.67	26.92	
C	---	1.166	---	29.61	
D	4.30	4.70	109.22	119.38	
F	.610	.640	15.49	16.25	
G	.213	.233	5.41	5.66	
H	---	.745	---	18.92	
J	.344	.373	8.74	9.47	2
K	.276	.286	7.01	7.26	
M	.465	.515	11.81	13.08	
R	---	.850	---	21.59	Dia
T	1.426	---	36.22	---	
AA	.427	.437	10.84	11.09	
BB	---	---	---	---	3
CC	.407	---	10.33	---	
DD	---	1.75	---	44.45	
EE	.215	.225	5.46	5.72	Dia
FF	.360	.390	9.14	9.91	
GG	.740	.750	18.80	19.05	

## D0205AA (D08)

- Soft recovery
- Glass Passivated Die
- 2500 Amps Surge Rating
- Glass to metal seal construction
- VRRM to 1600V

## Electrical Characteristics

Average forward current	IF(AV) 150 Amps	TC = 148°C, Half Sine Wave, RθJC = 0.35°C/W
Maximum surge current	IFSM 2500 Amps	8.3ms, half sine, TJ = 200°C
Max I <sup>2</sup> t for fusing	I <sup>2</sup> t 26000 A <sup>2</sup> s	
Max peak forward voltage	VFM 1.1 Volts	IFM = 200A: TJ = 25°C*
Max peak reverse current	IRM 50 μA	VRRM, TJ = 25°C
Max peak reverse current	IRM 5.0 mA	VRRM, TJ = 150°C
Max Recommended Operating Frequency	7.5kHz	

\*Pulse test: Pulse width 300 μsec. Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temperature range	TSTG	-65°C to 200°C
Operating junction temp range	TJ	-65°C to 200°C
Maximum thermal resistance	RθJC	0.35°C/W Junction to Case
Mounting torque		80-100 inch pounds
Weight		2.75 ounces (78 grams) typical

11-27-02 Rev. 2

# S/R43

Figure 1  
Typical Forward Characteristics

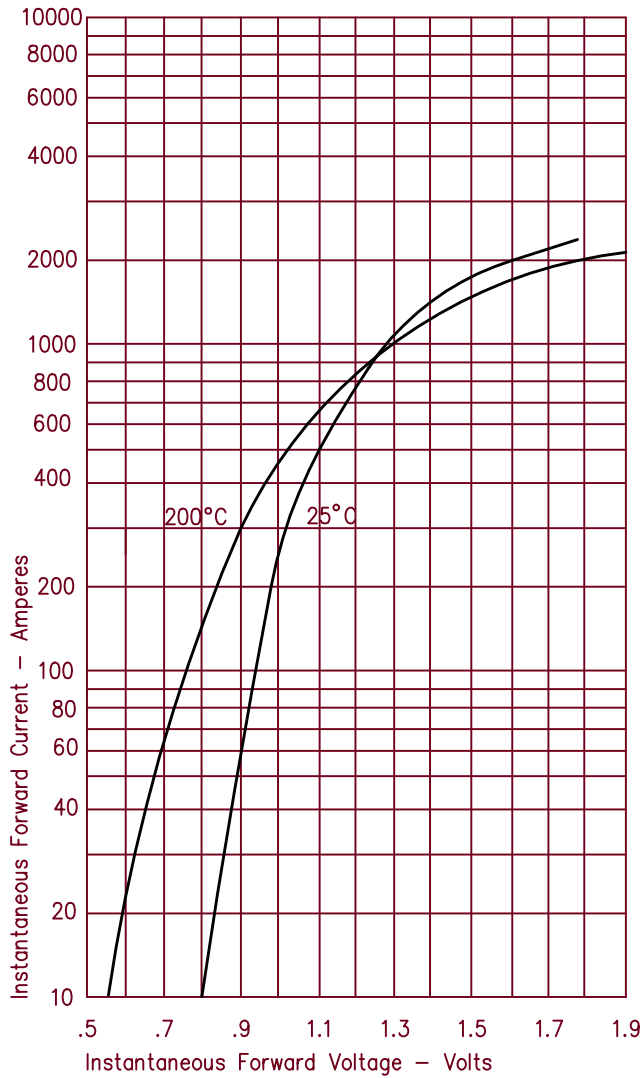


Figure 3  
Forward Current Derating

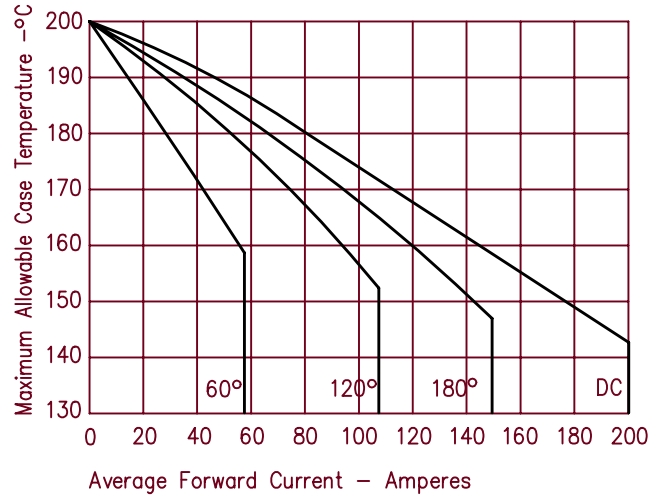


Figure 4  
Maximum Forward Power Dissipation

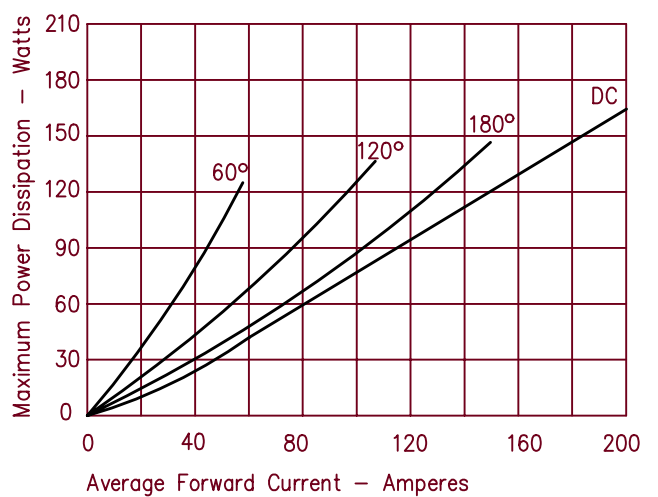


Figure 2  
Typical Reverse Characteristics

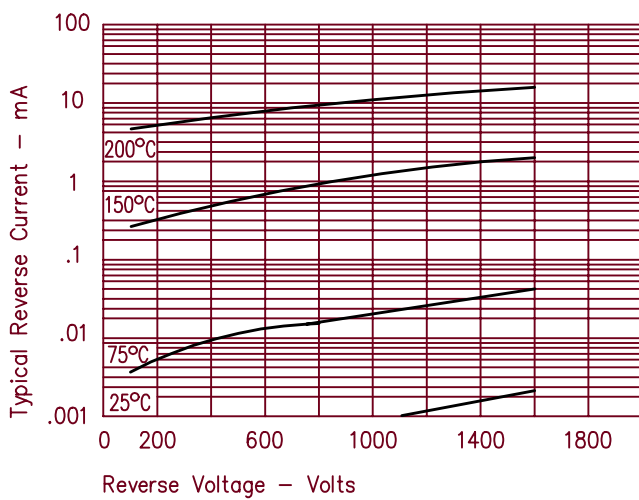


Figure 5  
Transient Thermal Impedance

