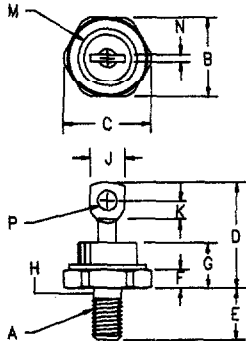


# Silicon Power Rectifier S/R34 Series



- Notes:
1. Full threads within 2 1/2 threads
  2. Standard Polarity: Stud is Cathode  
Reverse Polarity: Stud is Anode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1/4-28
B	.677	.687	17.19	17.44	
C	---	.793	---	20.14	
D	---	1.00	---	25.40	
E	.427	.447	10.84	11.35	
F	.115	.200	2.92	5.08	
G	---	.450	---	11.43	
H	.220	.249	5.59	6.32	1
J	---	.375	---	9.52	
K	.166	---	3.97	---	
M	---	.667	---	16.94	Dia
N	---	.080	---	2.03	
P	.140	.175	3.56	4.44	Dia

## D0203AB (D05)

Microsemi Catalog Number Standard	JEDEC Numbers	Peak Reverse Voltage
*S3410	1N1184, 1N2459	100V
*S3420	1N1186, 1N2461, 1N2788, 1N3968	200V
	1N4525	
*S3440	1N1190, 1N2285, 1N2467, 1N3970	400V
	1N3969, 1N4526	
*S3460	1N1190, 1N2285, 1N2467, 1N3970	600V
	1N4527	
*S3480	1N2286, 1N3766, 1N3971, 1N4528	800V
*S34100	1N2287, 1N3768, 1N4529	1000V
*S34120	1N2288, 1N4530, 1N5332	1200V
*S34140		1400V
*S34160		1600V

\*Change S to R in part number for Reverse Polarity

- Glass Passivated Die
- 800A surge rating
- Glass to metal construction
- $V_{RRM}$  to 1600V
- Excellent reliability

### Electrical Characteristics

Average forward current	IF(AV) 45 Amps	$T_C = 123^\circ\text{C}$ , half sine wave, $R_{\theta JC} = 1.75^\circ\text{C/W}$
Maximum surge current	IFSM 800 Amps	8.3ms, half sine, $T_J = 200^\circ\text{C}$
Max I <sup>2</sup> t for fusing	I <sup>2</sup> t 2600 A <sup>2</sup> s	
Max peak forward voltage	V <sub>FM</sub> 1.15 Volts	I <sub>FM</sub> = 90A; T <sub>J</sub> = 25°C *
Max peak reverse current	I <sub>RM</sub> 40 μA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Max peak reverse current	I <sub>RM</sub> 2.0 mA	V <sub>RRM</sub> , T <sub>J</sub> = 150°C
Max Recommended Operating Frequency	10kHz	

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

### Thermal and Mechanical Characteristics

Storage temperature range	T <sub>STG</sub>	-65°C to 200°C
Operating junction temp range	T <sub>J</sub>	-65°C to 200°C
Maximum thermal resistance	R <sub>θJC</sub>	1.75°C/W Junction to Case
Typical thermal resistance	R <sub>θJC</sub>	1.5°C/W Junction to Case
Mounting torque		30 inch pounds maximum
Weight		.5 ounces (14 grams) typical

**Microsemi Corp.**  
**Colorado**

PH: 303-469-2161  
FAX: 303-468-3775

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# S/R34

Figure 1  
Typical Forward Characteristics

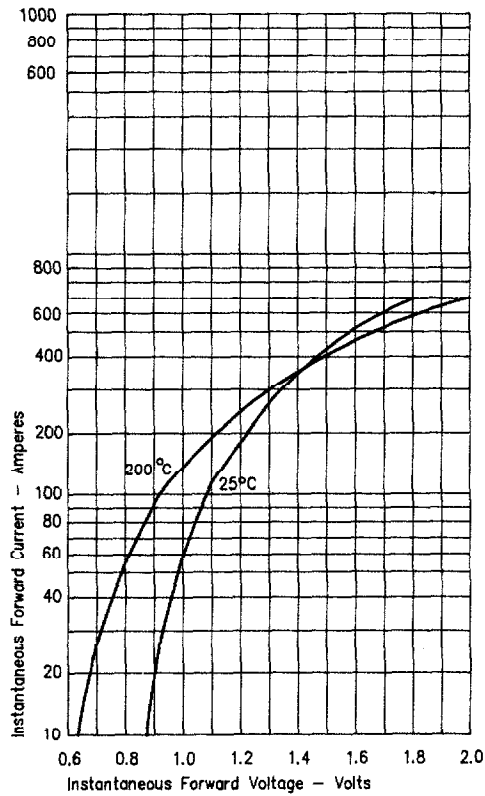


Figure 3  
Forward Current Derating

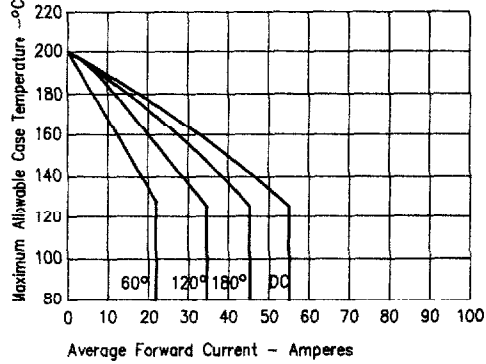


Figure 4  
Maximum Forward Power Dissipation

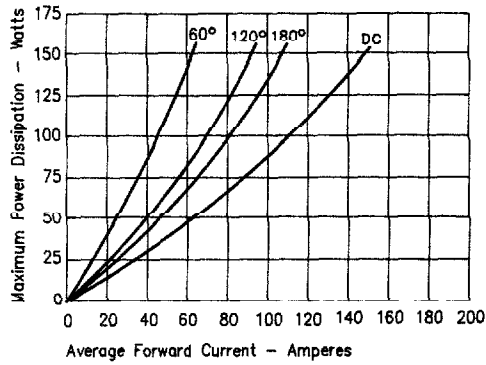


Figure 2  
Typical Reverse Characteristics

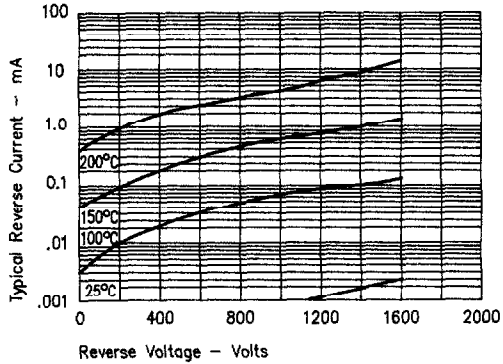
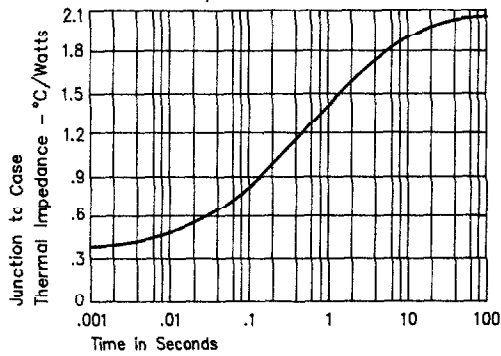
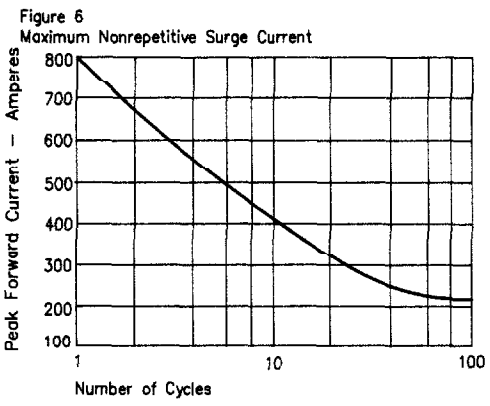


Figure 5  
Transient Thermal Impedance



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