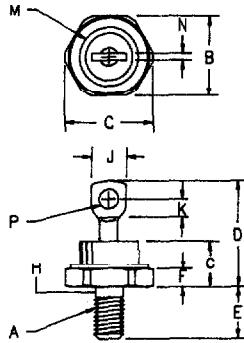


# Silicon Power Rectifier

## S/R35



- Notes:
1. 1/4-28
  2. Full threads within 2 1/2 threads
  3. Standard polarity:  
Stud is cathode  
Reverse polarity:  
Stud is anode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1
D	.607	.687	16.95	17.44	
C	---	.793	---	20.14	
D	---	1.00	---	25.40	
E	.422	.453	10.72	11.50	
F	.115	.200	2.93	5.08	
G	---	.450	---	11.43	
H	.220	.249	5.59	6.32	2
J	.250	.375	6.35	9.52	
K	.156	---	3.97	---	
M	---	.667	---	16.94	Dia
N	---	.080	---	2.03	
P	.140	.175	3.56	4.44	Dia

D0203AB (D05)

Microsemi		Peak Reverse Voltage
Catalog Standard	Number Reverse	
S3520	R3520	200V
S3640	R3640	400V
S3560	R3560	600V
S3580	R3580	800V
S35100	R35100	1000V
S35120	R35120	1200V
S35140	R35140	1400V
R35160	R35160	1600V

- Low Forward Voltage
- Glass to Metal Construction
- Glass Passivated Die
- Excellent Reliability
- VRRM to 1600V
- 1050 Amps Surge Rating

### Electrical Characteristics

Average forward current	IF(AV) 70 Amps	TC = 152°C, Half Sine Wave, RθJC = 0.65°C/W
Maximum surge current	IFSM 1050 Amps	8.3ms, half sine, TJ = 200°C
Max I <sup>2</sup> t for fusing	I <sup>2</sup> t 4500 A <sup>2</sup> s	
Max peak forward voltage	VFM 1.25 Volts	IFM = 200A; TJ = 25°C*
Max peak reverse current	IRM 50 μA	VRRM, TJ = 25°C
Max peak reverse current	IRM 3.0 mA	VRRM, TJ = 150°C
Max Recommended Operating Frequency	10kHz	

\*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	0.65°C/W Junction to Case
Typical thermal resistance	RθJC	0.55°C/W Junction to Case
Mounting torque		30 inch pounds maximum
Weight		.5 ounces (14 grams) typical

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

# S/R35

Figure 1  
Typical Forward Characteristics

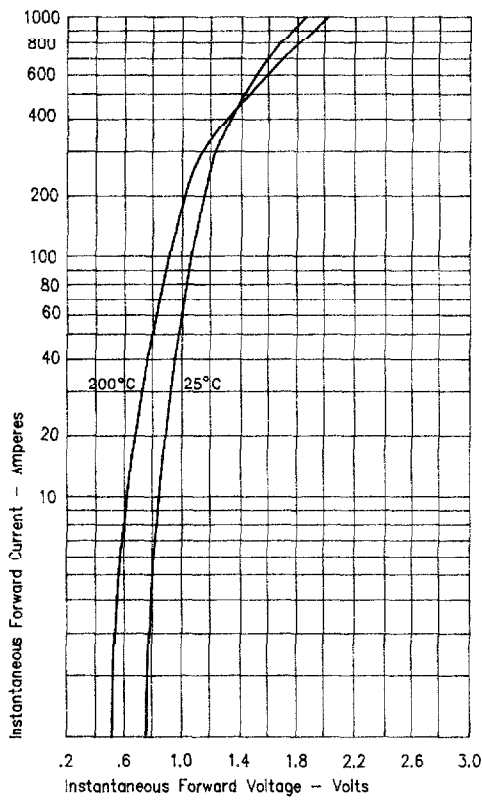


Figure 2  
Typical Reverse Characteristics

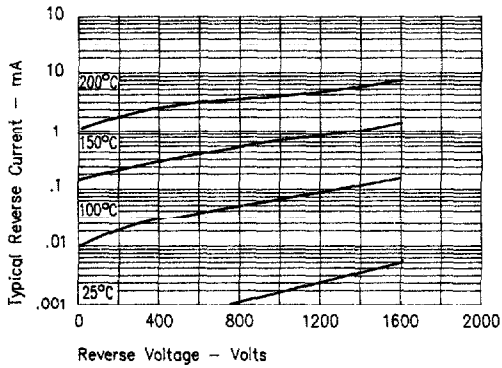


Figure 3  
Forward Current Derating

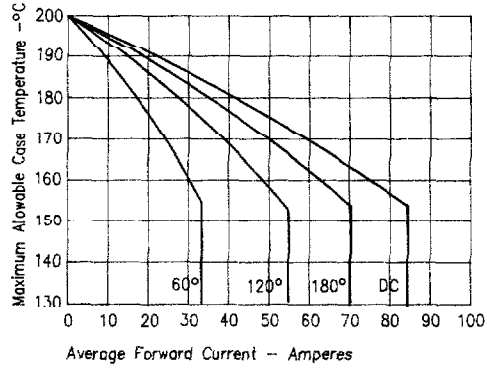


Figure 4  
Maximum Forward Power Dissipation

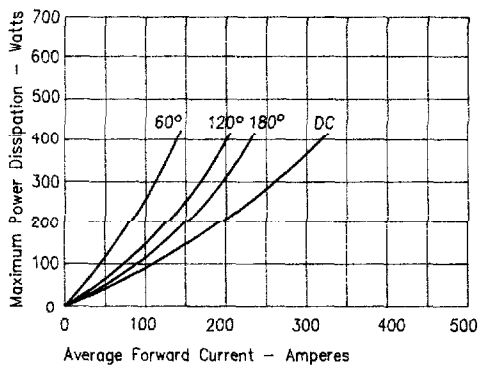
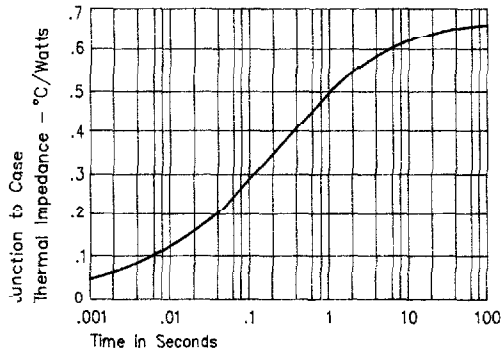


Figure 5  
Transient Thermal Impedance



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S/R35

