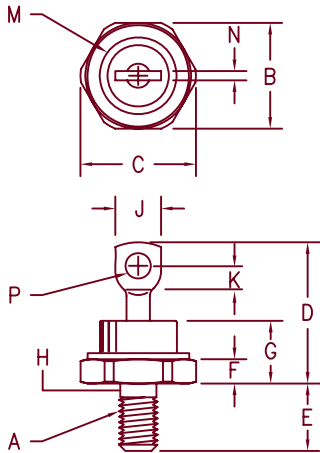




THE DATASHEET OF
S37160



Silicon Power Rectifier S/R37 Series



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

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1
B	.667	.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 Catalog Number Standard	Reverse	Peak Reverse Voltage
S3720	R3720	200V
S3740	R3740	400V
S3760	R3760	600V
S3780	R3780	800V
S37100	R37100	1000V
S37120	R37120	1200V
S37140	R37140	1400V
S37160	R37160	1600V

- Glass Passivated Die
- 1500 Amps Surge Rating
- Glass to metal seal construction
- VRRM to 1600V
- Excellent reliability

Electrical Characteristics

Average forward current	$I_F(AV)$ 85 Amps	$T_C = 147^\circ C$, Half Sine Wave, ^R $\theta_{JC} = 0.6^\circ C/W$
Maximum surge current	I_{FSM} 1500 Amps	8.3ms, half sine, $T_J = 200^\circ C$
Max $I^2 t$ for fusing	$I^2 t$ 9300 A ² s	
Max peak forward voltage	V_{FM} 1.15 Volts	$I_{FM} = 200A; T_J = 25^\circ C^*$
Max peak reverse current	I_{RM} 25 μA	$V_{RRM}, T_J = 25^\circ C$
Max peak reverse current	I_{RM} 2.0 mA	$V_{RRM}, T_J = 150^\circ C$
Max Recommended Operating Frequency	10kHz	

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

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	-65°C to 200°C
Operating junction temp range	T_J	-65°C to 200°C
Maximum thermal resistance	$R_{\theta JC}$	0.6°C/W junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.5°C/W case to sink
Mounting torque		25-30 inch pounds
Weight		.6 ounces (17 grams) typical



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05-02-07 Rev. 3

S/R37

Figure 1
Typical Forward Characteristics

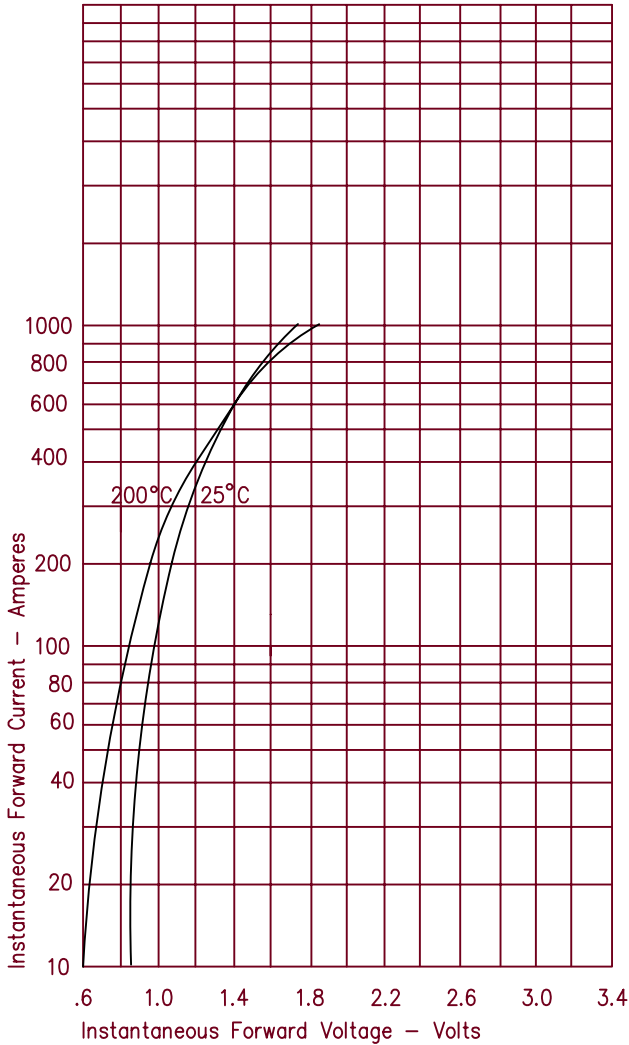


Figure 3
Forward Current Derating

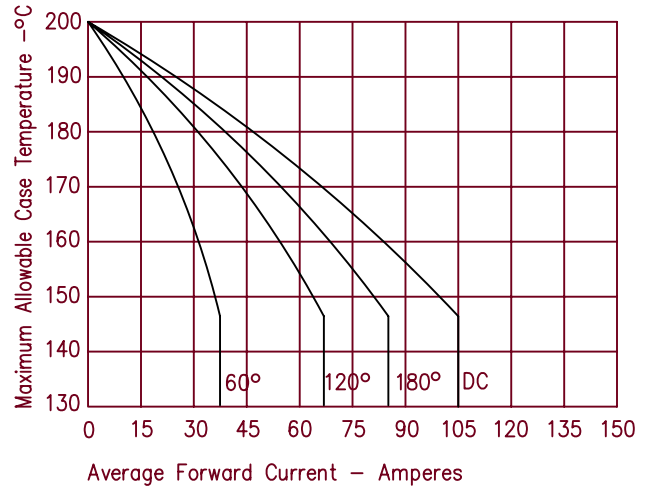


Figure 4
Maximum Forward Power Dissipation

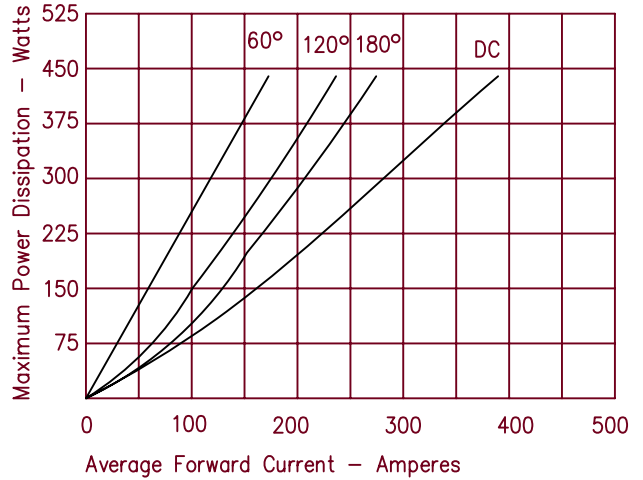


Figure 2
Typical Reverse Characteristics

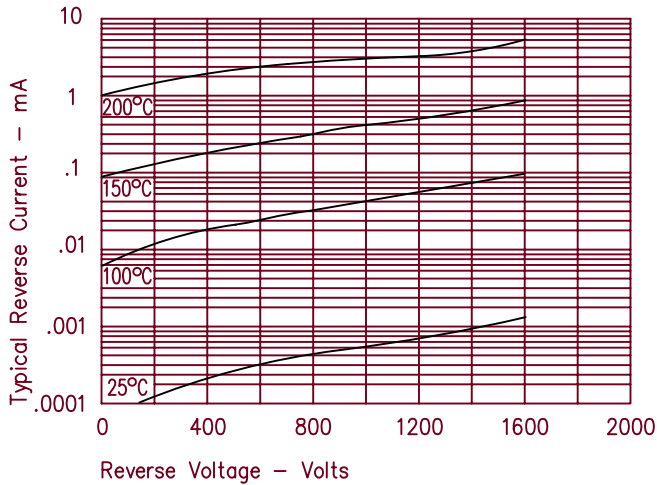
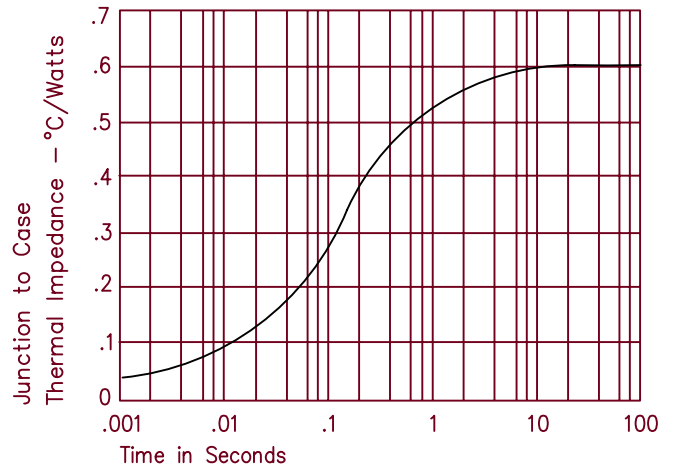


Figure 5
Transient Thermal Impedance



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