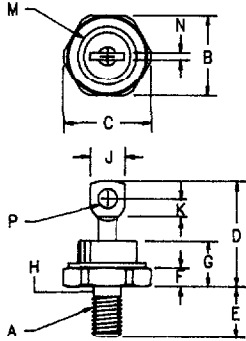


# Military Silicon Power Rectifier

## 1N1184-1N1190, 1N3766-1N3768



- Notes:
- 1/4-28 UNF-3A
  - Full threads within 2 1/2 threads
  - For Reverse Polarity add R to Part Number  
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		Peak Reverse Voltage
Standard	Reverse	
1N1184	1N1184R	100V
1N1186	1N1186R	200V
1N1188	1N1188R	400V
1N1190	1N1190R	600V
1N3766	1N3766R	800V
1N3768	1N3768R	1000V

- Available in JAN, JANTX, JANTXV
- Mil-S-19500/297
- Glass Passivated Die
- Glass to metal construction
- 500 Amps surge rating
- $V_{RRM}$  to 1000V

Electrical Characteristics		
Average forward current	$I_F(AV)$ 35 Amps	$T_C = 150^\circ C$ , half sine wave, $R_{\theta JC} = 0.8^\circ C/W$
Maximum surge current	$I_{FSM}$ 500 Amps	8.3ms, half sine, $T_J = 150^\circ C$
Max $I^2t$ for fusing	$I^2t$ 1100 $A^2s$	
Max peak forward voltage	$V_{FM}$ 1.40 Volts	$I_{FM} = 110A$ ; $25^\circ C^*$
Max peak forward voltage	$V_{FM}$ 2.3 Volts	$I_{FM} = 500A$ ; $25^\circ C$
Max peak reverse current	$I_{RM}$ 10 $\mu A$	$V_{RRM}, T_J = 25^\circ C$
Max peak reverse current	$I_{RM}$ 1.0 mA	$V_{RRM}, T_J = 150^\circ C^*$
Max Recommended Operating Frequency	10 kHz	

\*Pulse test: Pulse width 300  $\mu sec$ , Duty cycle 2%

Thermal and Mechanical Characteristics		
Storage temp range	$T_{STG}$	$-65^\circ C$ to $175^\circ C$
Operating junction temp range	$T_J$	$-65^\circ C$ to $175^\circ C$
Max thermal resistance	$R_{\theta JC}$	$0.8^\circ C/W$ Junction to Case
Typical thermal resistance	$R_{\theta JC}$	$0.7^\circ C/W$ Junction to Case
Max mounting torque		30 inch pounds maximum
Typical Weight		.5 ounces (14 grams) typical

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

# 1N1184-1N1190, 1N3766-1N3768

Figure 1  
Typical Forward Characteristics

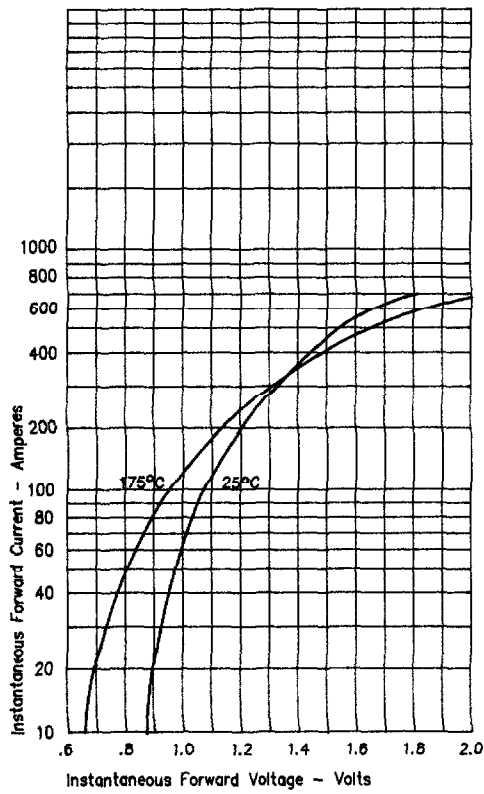


Figure 3  
Forward Current Derating

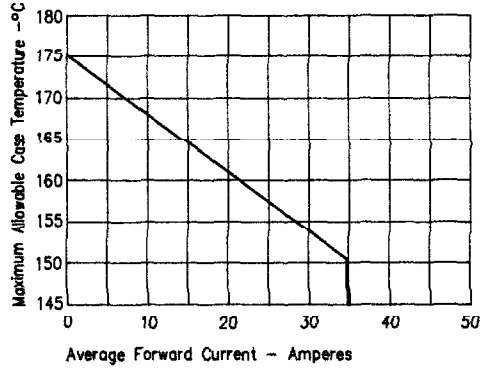


Figure 4  
Transient Thermal Impedance

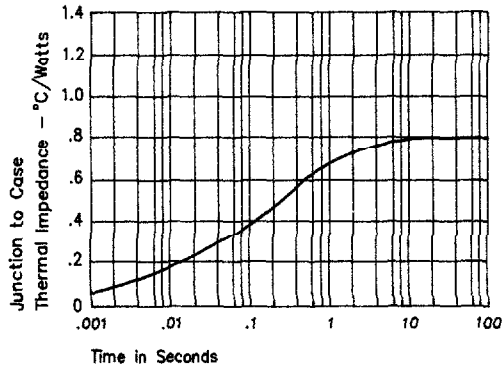


Figure 2  
Typical Reverse Characteristics

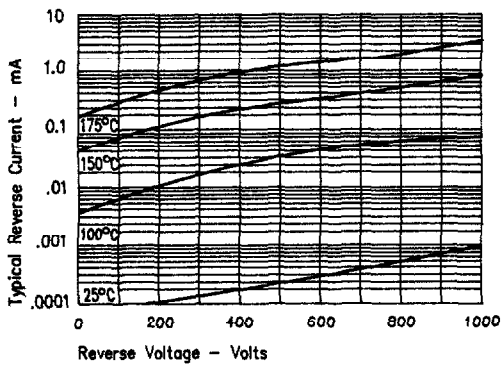
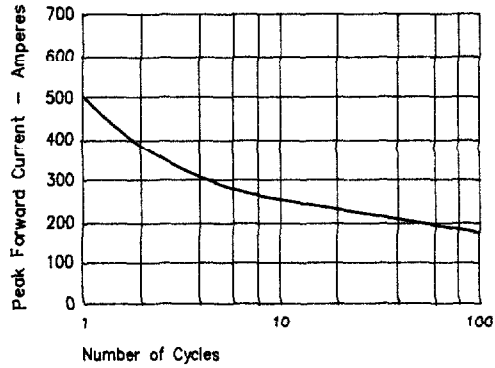


Figure 5  
Maximum Nonrepetitive Surge Current



E