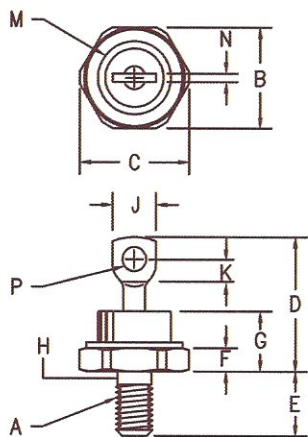


# Military Silicon Power Rectifier

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



### Notes:

- 1/4-28 UNF-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	Reverse	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-PRF-19500/297
- Glass Passivated Die
- Glass to metal seal construction
- 500 Amps surge rating
- $V_{RRM}$  to 1000V

### Electrical Characteristics

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

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

### Thermal and Mechanical Characteristics

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

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

Figure 1  
Typical Forward Characteristics

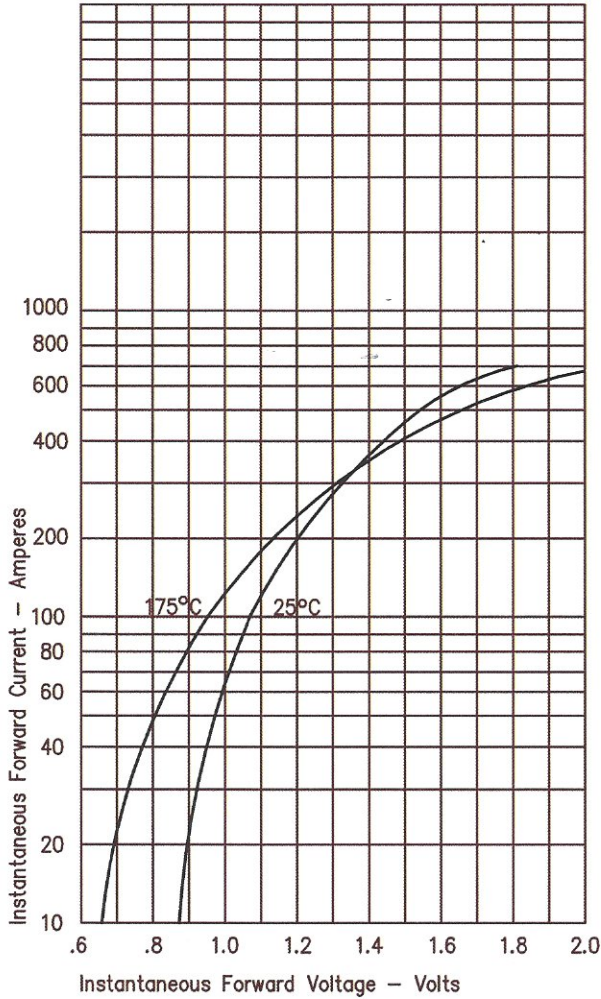


Figure 3  
Forward Current Derating

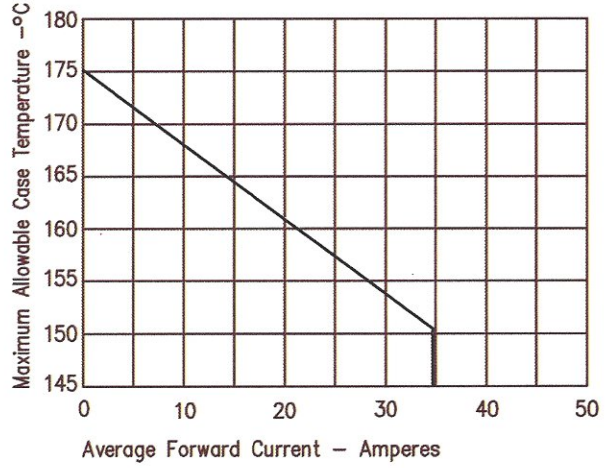


Figure 4  
Transient Thermal Impedance

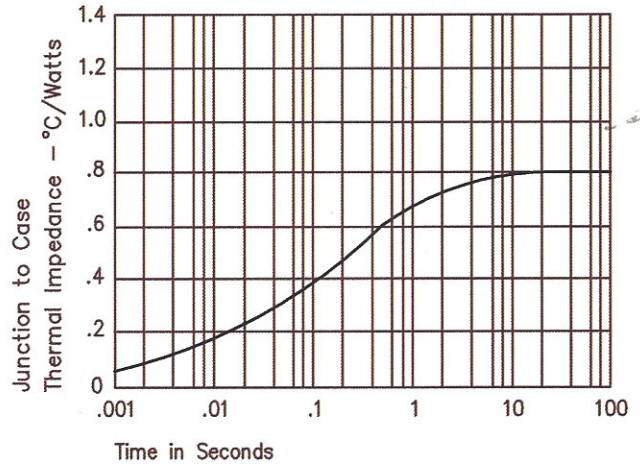


Figure 2  
Typical Reverse Characteristics

