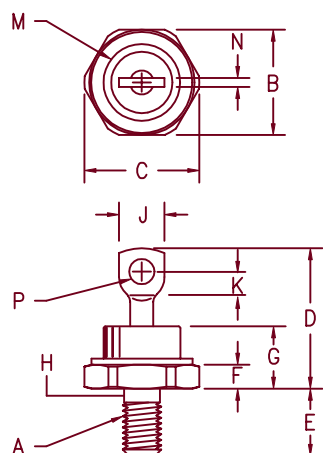


Silicon Power Rectifier

1N1183–1N1190, 1N3765–1N3768



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	.667	.687	16.95	17.44	
C	---	.793	---	20.14	
D	---	1.00	---	25.40	
E	.422	.453	10.72	11.50	1
F	.115	.200	2.92	5.08	
G	---	.450	---	11.43	
H	.220	.249	5.59	6.32	
J	.250	.375	6.35	9.52	Dia
K	.156	---	3.97	---	
M	---	.667	---	16.94	
N	---	.080	---	2.03	
P	.140	.175	3.56	4.44	Dia

D0203AB (D0–5)

JEDEC Numbers

1N1183, 1N1183A
1N1184, 1N1184A
1N1185, 1N1185A
1N1186, 1N1186A
1N1187, 1N1187A
1N1188, 1N1188A
1N1189, 1N1189A
1N1190, 1N1190A
1N3765
1N3766
1N3767
1N3768

Peak Reverse Voltage

50V
100V
150V
200V
300V
400V
500V
600V
700V
800V
900V
1000V

For Reverse Polarity add R to Part Number

- Glass Passivated Die
- 800A surge rating
- Glass to metal construction
- V_{RRM} to 1000V

Electrical Characteristics

Average forward current $I_F(AV)$ 40 Amps
Maximum surge current I_{FSM} 800 Amps
Max $I^2 t$ for fusing $I^2 t$ 2600 A²s
Max peak forward voltage V_{FM} 1.19 Volts
Max peak reverse current I_{RM} 10 μ A
Max peak reverse current I_{RM} 2.0 mA
Max Recommended Operating Frequency 10kHz

$T_C = 152^\circ\text{C}$, half sine wave, $R_{\theta JC} = 1.25^\circ\text{C/W}$
8.3ms, half sine, $T_J = 200^\circ\text{C}$

$I_{FM} = 90A; T_J = 25^\circ\text{C}^*$
 $V_{RRM}, T_J = 25^\circ\text{C}$
 $V_{RRM}, T_J = 150^\circ\text{C}$

*Pulse test: Pulse width 300 μ sec. Duty cycle 2%

Thermal and Mechanical Characteristics

Storage temperature range
Operating junction temp range
Maximum thermal resistance
Mounting torque
Weight

T_{STG}
 T_J
 $R_{\theta JC}$

-65°C to 200°C
 -65°C to 200°C
1.25 $^\circ\text{C/W}$ Junction to Case
25–30 inch pounds
.5 ounces (14 grams) typical

1–25–01 Rev. IR

1N1183–1N1190, 1N3765–1N3768

Figure 1
Typical Forward Characteristics

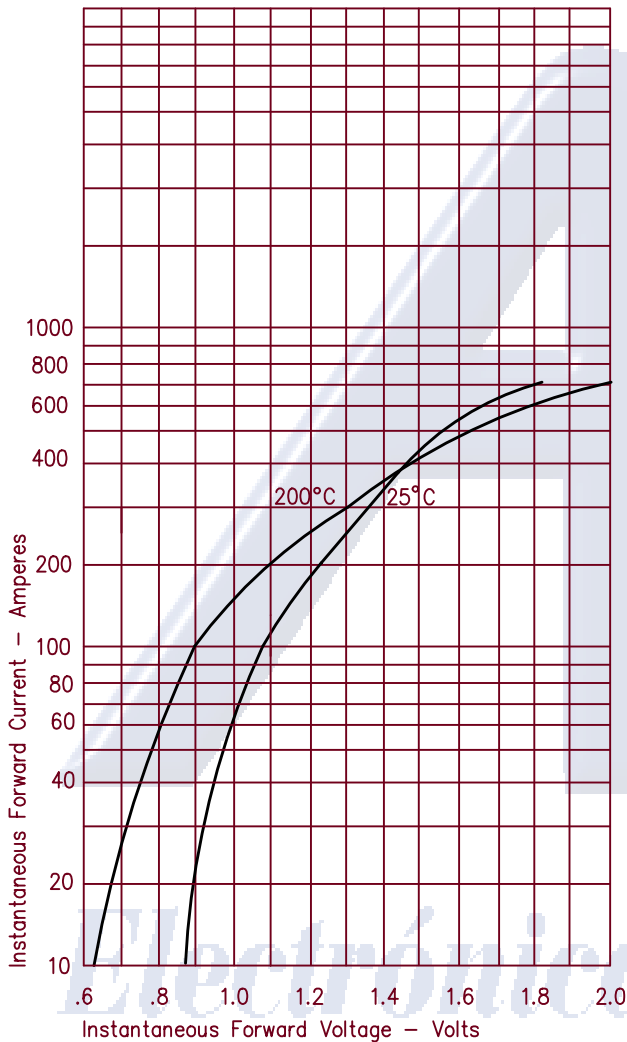


Figure 3
Forward Current Derating

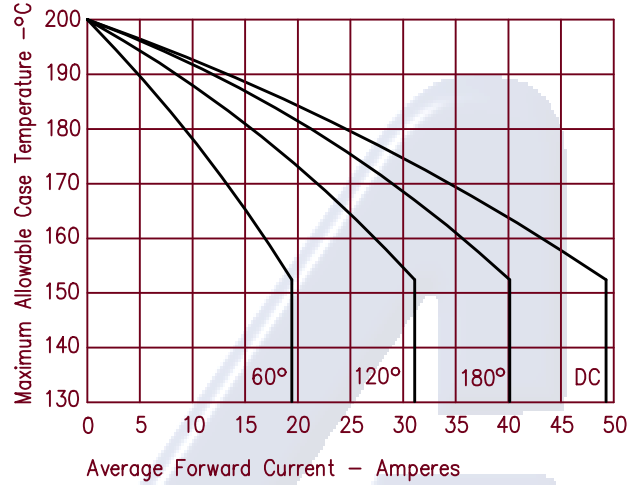


Figure 4
Maximum Forward Power Dissipation

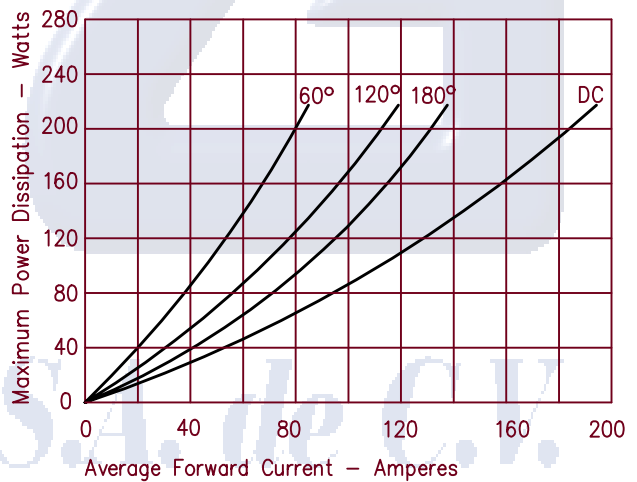


Figure 2
Typical Reverse Characteristics

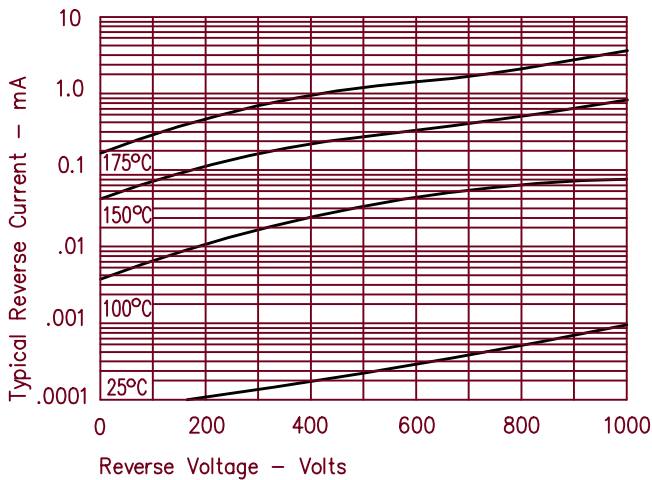


Figure 5
Transient Thermal Impedance

