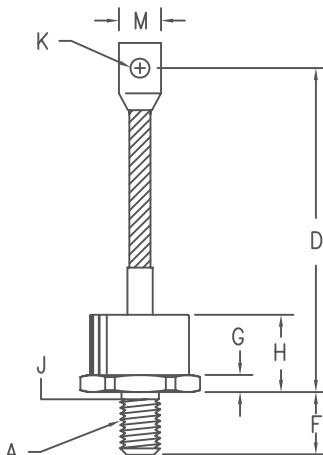
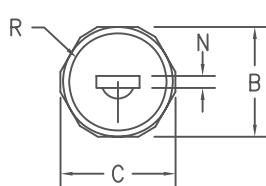


Silicon Power Rectifier

1N3161 — 1N3177



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	.375	.400	UNF	---	---
B	1.218	1.250	30.93	31.75	
C	1.350	1.375	34.29	34.93	
D	5.30	5.90	134.62	149.86	
F	.793	.828	20.14	21.03	
G	.300	.325	7.62	8.25	
H	---	.900	---	22.86	
J	.660	.745	16.76	19.02	2
K	.338	.348	8.58	8.84	Dia.
M	.665	.755	16.89	19.17	
N	.125	.172	3.18	4.37	
R	---	1.10	---	27.94	Dia.

Notes:

1. Full threads within 2 1/2 threads.
2. Standard Polarity: Stud is Cathode
Reverse Polarity: Stud is Anode

Microsemi
Catalog Number

	Peak Reverse Voltage
1N3161	50V
1N3162	100V
1N3163	150V
1N3164	200V
1N3165	250V
1N3166	300V
1N3167	350V
1N3168	400V
1N3169	500V
1N3170	600V
1N3171,A	700V
1N3172,A	800V
1N3173,A	900V
1N3174,A	1000V
1N3175	1200V
1N3176	1400V
1N3177	1600V

Add R suffix for reverse polarity

- Glass to metal seal construction
- High surge current capability
- Glass Passivated Die
- Rugged construction
- V_{RRM} 50–1600 Volts

Electrical Characteristics

Max average forward current

$I_{F(AV)}$ 240 Amps

$T_C = 149^\circ\text{C}$, Half sine wave, $R_{\theta JC} = 0.20^\circ\text{C}/\text{W}$

Max surge current

I_{FSM} 3000 Amps

8.3ms, half sine, $T_J = 200^\circ\text{C}$

Max. I^2t capability for fusing

I^{2t} 37,480 ^2S

less than 8.33ms

Max peak forward voltage

V_{FM} 1.25 Volts

$|I_F = 240\text{A}; T_C = 25^\circ\text{C}$

Max peak reverse current

I_{RRM} 10mA

$V_{RRM}, T_C = 150^\circ\text{C}$

Max peak reverse current

I_{RRM} 75 μA

$V_{RRM}, T_C = 25^\circ\text{C}$

Max recommended operating frequency

7.5 kHz

Thermal and Mechanical Characteristics

Operating junction temp range

T_J

-65 $^\circ\text{C}$ to 200 $^\circ\text{C}$

Storage temperature range

T_{STG}

-65 $^\circ\text{C}$ to 200 $^\circ\text{C}$

Maximum thermal resistance

$R_{\theta JC}$

0.20 $^\circ\text{C}/\text{W}$ Junction to case

Typical thermal resistance (greased)

$R_{\theta CS}$

.08 $^\circ\text{C}/\text{W}$ Case to sink

Max mounting torque

300–325 inch pounds

Weight

8.5 ounces (240 grams) typical

1N3161 - 1N3177

Figure 1
Typical Forward Characteristics

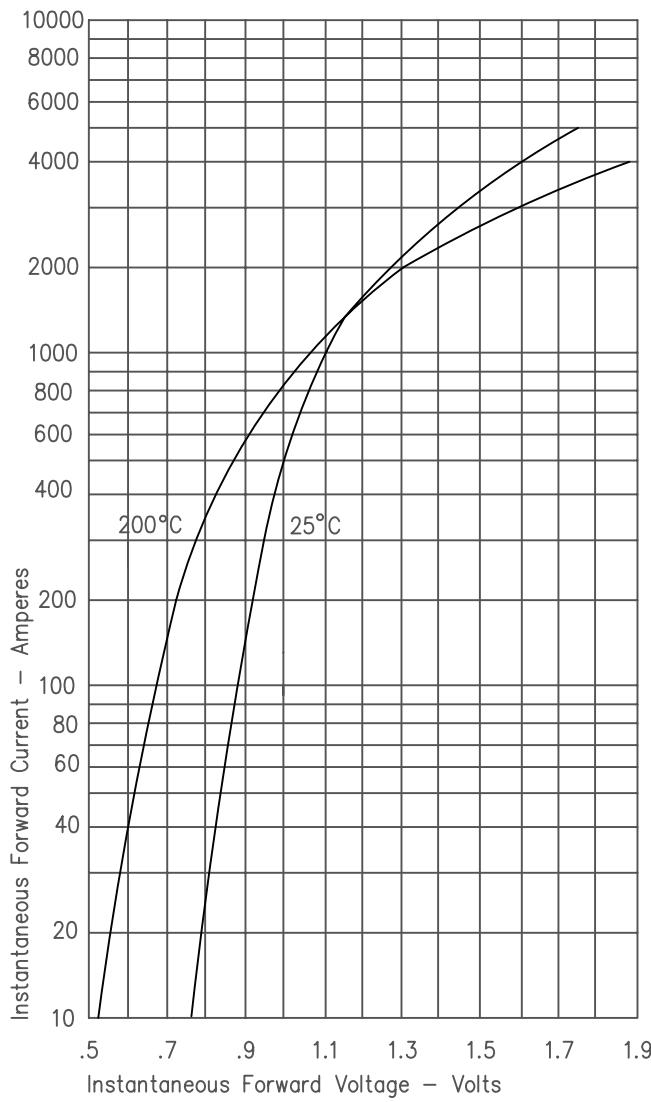


Figure 2
Typical Reverse Characteristics

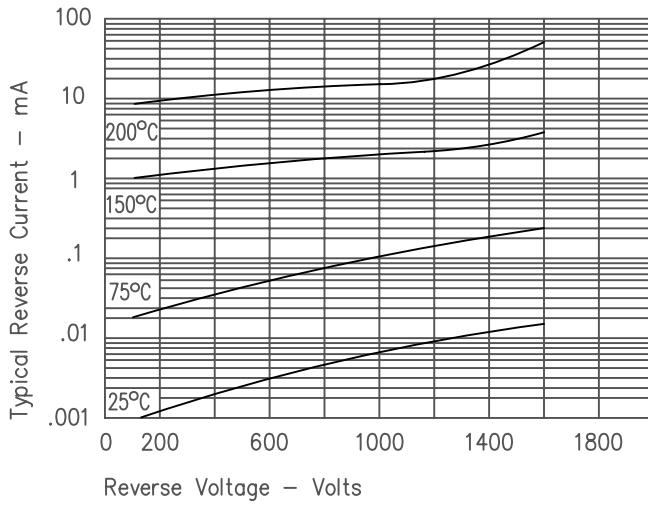


Figure 3
Forward Current Derating

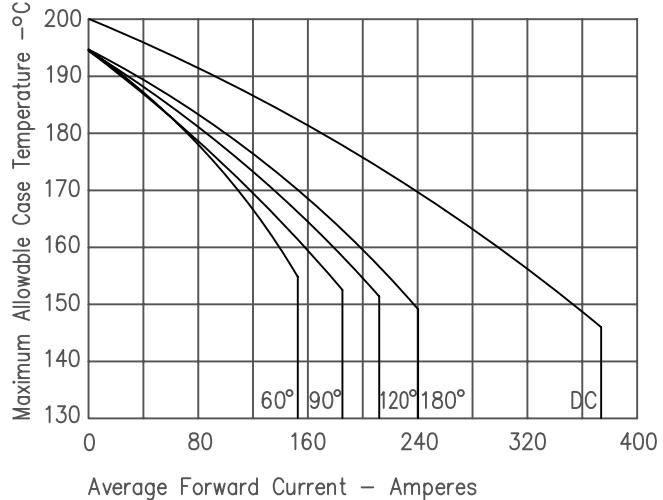


Figure 4
Maximum Forward Power Dissipation

