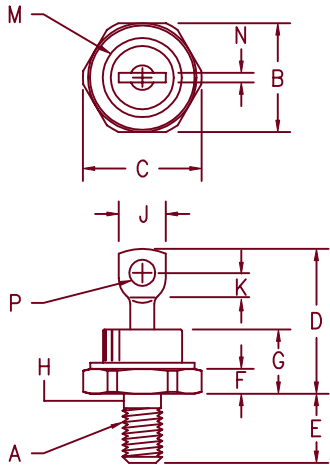


# 80 Amp Schottky Rectifier SBR8060



- 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	.669	.688	17.00	17.47	
C	---	.794	---	20.16	
D	.750	1.00	19.05	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	1
J	---	.375	---	9.52	
K	.156	---	3.97	---	
M	---	.510	---	12.95	Dia
N	---	.080	---	2.03	
P	.140	.175	3.56	4.44	Dia

## DO-203AB (DO-5)

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
SBR8060*	60V	60V

\*Add the Suffix R for Reverse Polarity

- Schottky barrier rectifier
- Guard ring protection
- $V_{RRM}$  60 Volts
- Reverse Energy Tested
- 175°C junction temperature
- 80 Amperes

## Electrical Characteristics

Average forward current	$I_{F(AV)}$ 80 Amps	$T_C = 131^\circ\text{C}$ , square wave, $R_{\theta JC} = 0.8^\circ\text{C/W}$
Maximum surge current	$I_{FSM}$ 1200 Amps	8.3ms, half sine, $T_J = 175^\circ\text{C}$
Max repetitive peak reverse current	$I_{R(OV)}$ 2 Amp	$f = 1\text{ KHz}$ , $25^\circ\text{C}$ , $1\ \mu\text{sec}$ square wave
Max peak forward voltage	$V_{FM}$ .77 Volts	$I_{FM} = 80\text{A}$ : $25^\circ\text{C}^*$
Max peak reverse current	$I_{RM}$ 30 mA	$V_{RRM}, T_J = 125^\circ\text{C}$
Max peak reverse current	$I_{RM}$ 2.0 mA	$V_{RRM}, T_J = 25^\circ\text{C}$
Typical junction capacitance	$C_J$ 2000 pF	$V_R = 5.0\text{V}$ , $T_J = 25^\circ\text{C}$ , $f = 1\text{MHz}$

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

## Thermal and Mechanical Characteristics

Storage temp range	$T_{STG}$	$-55^\circ\text{C}$ to $175^\circ\text{C}$
Operating junction temp range	$T_J$	$-55^\circ\text{C}$ to $175^\circ\text{C}$
Maximum thermal resistance	$R_{\theta JC}$	$0.8^\circ\text{C/W}$ junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	$0.5^\circ\text{C/W}$ case to sink
Mounting torque		25-30 inch pounds
Weight		.54 ounces (15.3 grams) typical

# SBR8060

Figure 1  
Typical Forward Characteristics

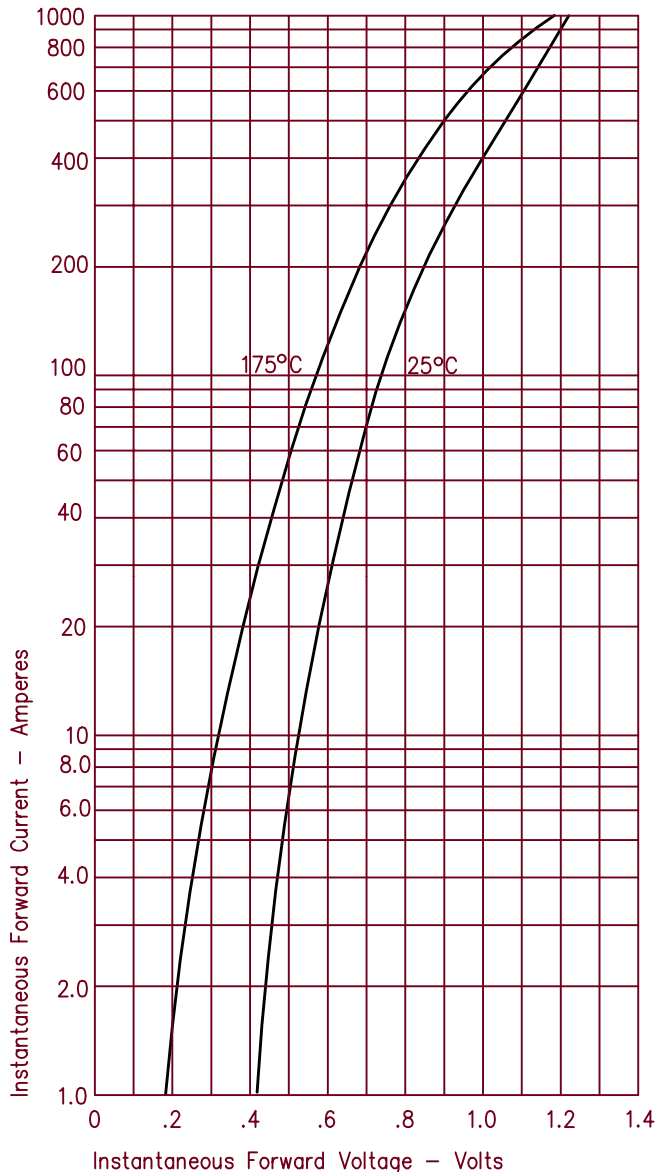


Figure 3  
Typical Junction Capacitance

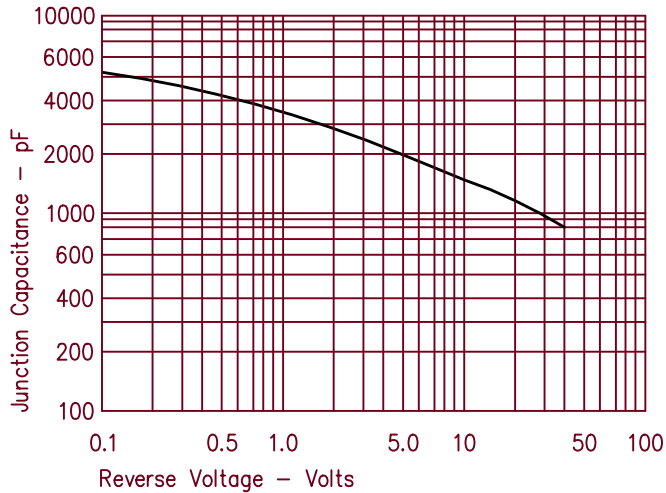


Figure 4  
Forward Current Derating

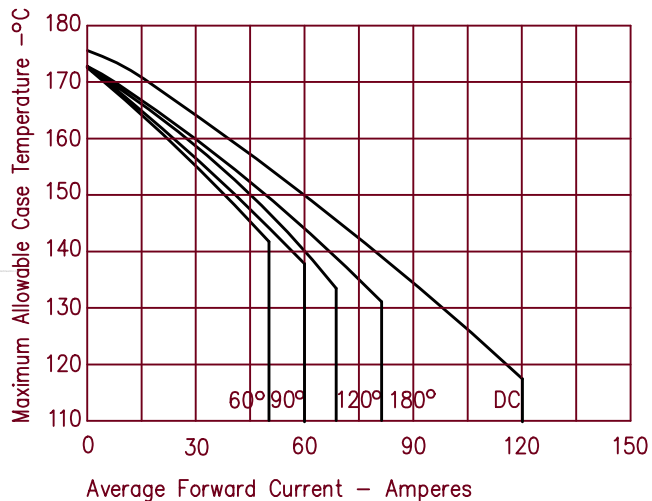


Figure 2  
Typical Reverse Characteristics

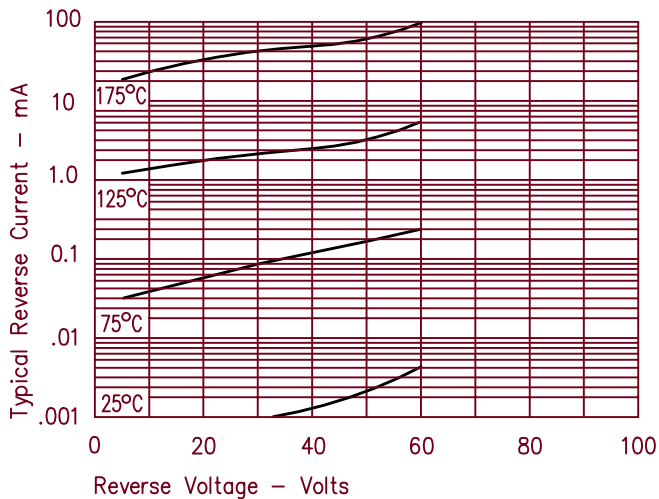


Figure 5  
Maximum Forward Power Dissipation

