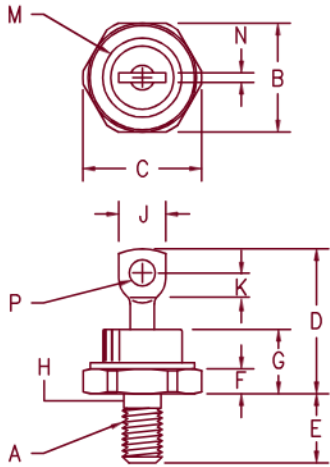


# 60 Amp Schottky Rectifier SBR6035 — SBR6045



- 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

SBR6035\*  
SBR6040\*  
SBR6045\*

Peak Reverse  
Voltage

35V  
40V  
45V

\*Add Suffix R For Reverse Polarity

- Schottky Barrier Rectifier
- Low forward voltage
- Guard Ring Protected
- Reverse Energy Tested
- 150°C Junction Temperature
- $V_{RRM}$  -35 to 45 Volts

## Electrical Characteristics

Average forward current per leg  
Maximum surge current per leg  
Max repetitive peak reverse current  
Max peak forward voltage  
Max peak forward voltage  
Max peak reverse current  
Max peak reverse current  
Typical junction capacitance

$I_F(AV)$  60 Amps  
 $I_{FSM}$  1000 Amps  
 $I_R(OV)$  2 Amp  
 $V_{FM}$  .58 Volts  
 $V_{FM}$  .60 Volts  
 $I_{RM}$  600 mA  
 $I_{RM}$  2.0 mA  
 $C_J$  2700 pF

$T_C = 102^\circ\text{C}$ , Square wave,  $R_{\theta JC} = 1.0^\circ\text{C/W}$   
8.3ms, half sine,  $T_J = 125^\circ\text{C}$   
 $f = 1 \text{ KHz}$ ,  $25^\circ\text{C}$ , 1  $\mu\text{sec}$  Square wave  
 $I_{FM} = 60\text{A}$ :  $125^\circ\text{C}$  \*  
 $I_{FM} = 60\text{A}$ :  $25^\circ\text{C}$  \*  
 $V_{RRM}, T_J = 125^\circ\text{C}$  \*  
 $V_{RRM}, T_J = 25^\circ\text{C}$   
 $V_R = 5.0\text{V}$ ,  $T_J = 25^\circ\text{C}$

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

## Thermal and Mechanical Characteristics

Storage temp range  
Operating junction temp range  
Max thermal resistance  
Typical thermal resistance (greased)  
Mounting torque  
Weight

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

$-65^\circ\text{C}$  to  $175^\circ\text{C}$   
 $-65^\circ\text{C}$  to  $150^\circ\text{C}$   
 $1.0^\circ\text{C/W}$  Junction to Case  
 $0.5^\circ\text{C/W}$  Case to sink  
25-30 inch pounds  
.54 ounces (15.3 grams) typical

# SBR6035

# — SBR6045

Figure 1  
Typical Forward Characteristics

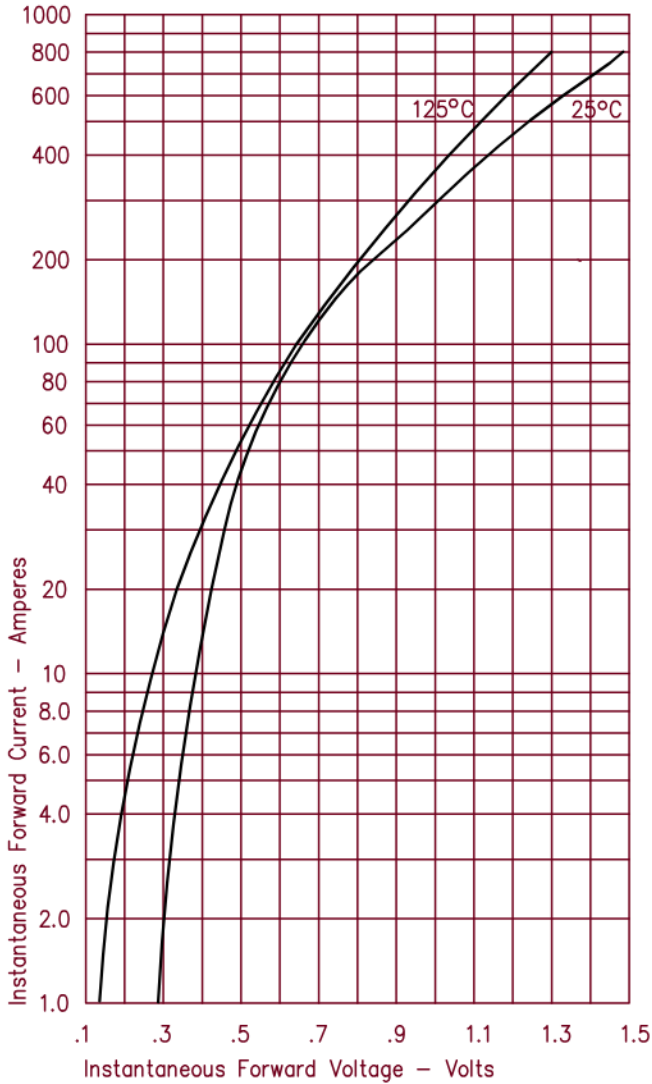


Figure 3  
Typical Junction Capacitance

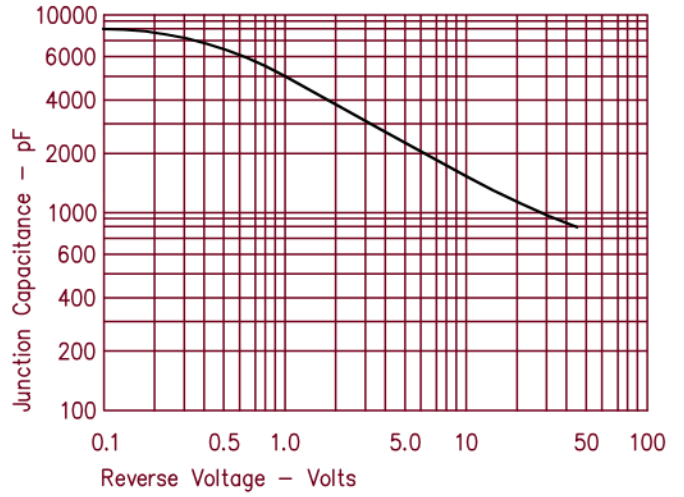


Figure 4  
Forward Current Derating

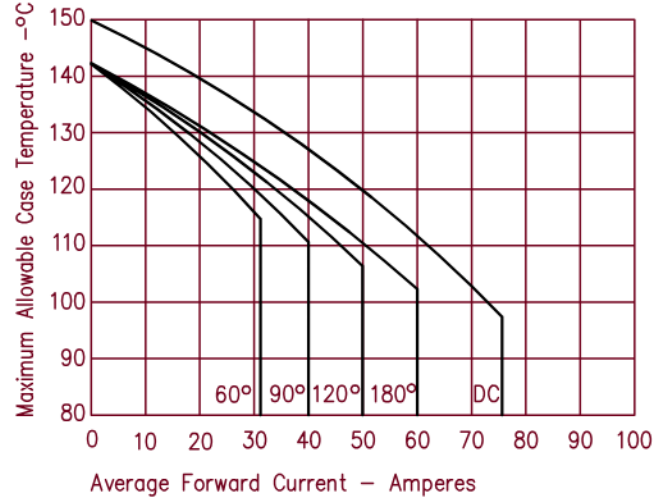


Figure 2  
Typical Reverse Characteristics

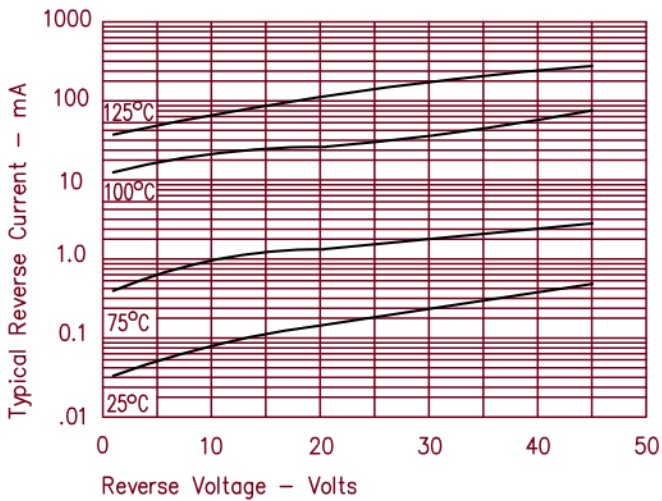


Figure 5  
Maximum Forward Power Dissipation

