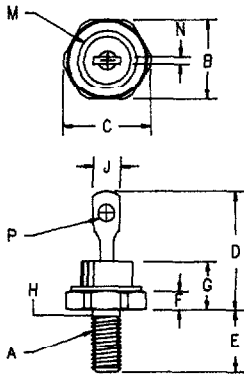


# 30 Amp Schottky Rectifier SBR 30



Notes:  
 1. 10-32 UNF3A threads  
 2. 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	.424	.437	10.77	11.10	
C	---	.505	---	12.82	
D	.600	.800	15.24	20.32	
E	.422	.453	10.72	11.50	
F	.075	.175	1.91	4.44	
G	---	.405	---	10.29	
H	.163	.189	4.15	4.80	2
J	---	.250	2.54	3.56	
M	---	.350	---	8.89	Dia.
N	.020	.065	.510	1.65	
P	.070	.100	1.78	2.54	Dia.

## DO203AA (D04)

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
SBR3035*	35V	35V
SBR3040*	40V	40V
SBR3045*	45V	45V
SBR3050*	50V	50V

\*Add Suffix R For Reverse Polarity

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- VRRM 35 to 50V
- 30 Amperes
- Reverse Energy Tested

### Electrical Characteristics

Average forward current	IF(AV) 30 Amps	TC = 145°C Square wave, RθJC = 1.5°C/W
Maximum surge current	IFSM 600 Amps	8.3 ms, half sine TJ = 175°C
Max repetitive peak reverse current	IR(OV) 2 Amps	f = 1 KHz, 25°C, 1 μsec Square wave
Max peak forward voltage	VFM .49 Volts	IFM = 30A: TJ = 175°C*
Max peak forward voltage	VFM .63 Volts	IFM = 30A: TJ = 25°C*
Max peak reverse current	IRM 25 mA	VRRM, TJ = 125°C*
Max peak reverse current	IRM 1.5 mA	VRRM, TJ = 25°C
Typical reverse current	IRM 6 μA	VRRM, TJ = 25°C
Typical junction capacitance	CJ 1800 pF	VR = 5.0V, TJ = 25°C

\*Pulse test: Pulse width 300 μsec, Duty cycle 2%

### Thermal and Mechanical Characteristics

Storage temp range	TSTG	-55°C to 175°C
Operating junction temp range	TJ	-55°C to 175°C
Max thermal resistance	RθJC	1.5°C/W Junction to case
Typical thermal resistance	RθJC	1.1°C/W Junction to case
Typical thermal resistance	RθCS	0.5°C/W Case to sink
Max mounting torque		15 inch pounds maximum
Weight		0.2 ounces (6.0 grams) typical

**Microsemi Corp.**  
**Colorado**

PH: 303-469-2161  
 FAX: 303-466-3776

C-93

# SBR 30

Figure 1  
Typical Forward Characteristics

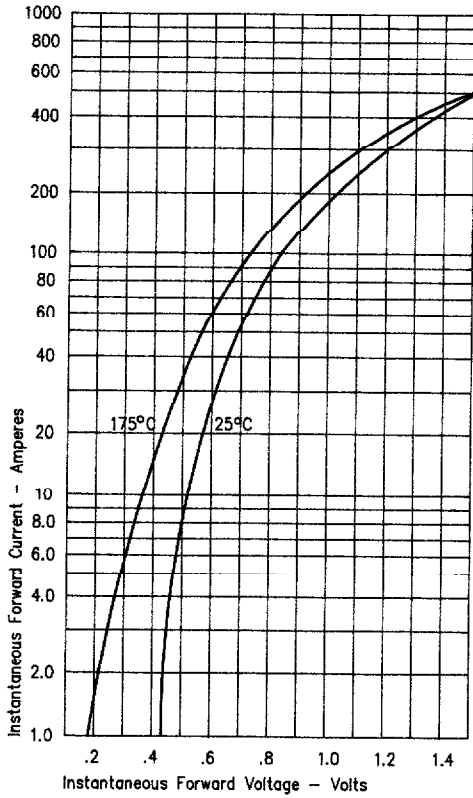


Figure 3  
Typical Junction Capacitance

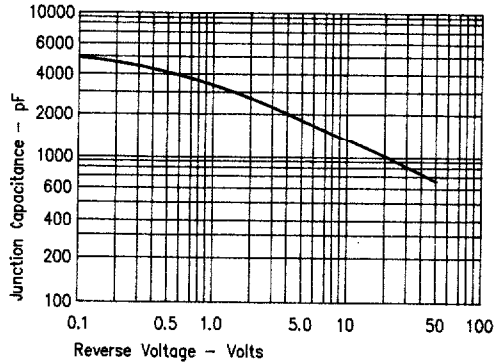


Figure 4  
Forward Current Derating

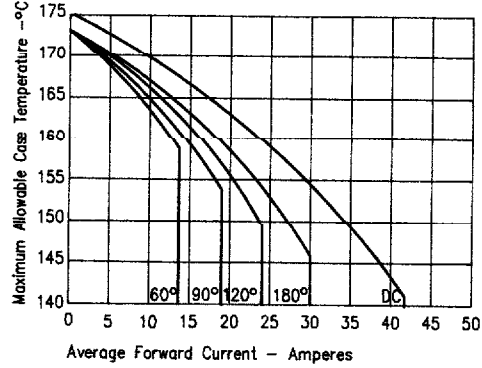


Figure 2  
Typical Reverse Characteristics

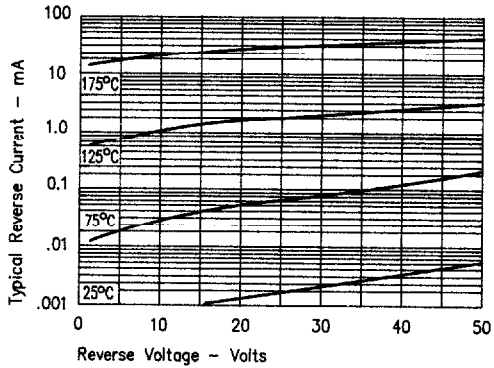


Figure 5  
Maximum Forward Power Dissipation

