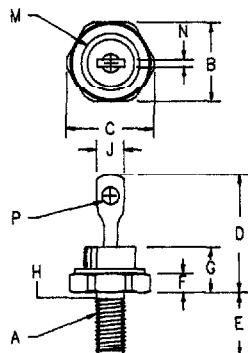


# Schottky Rectifier SBR 25

C



**Notes:**  
 1. 10-32 UNF3A threads  
 2. Full threads within 2 1/2 threads Standard Polarity  
 Stud is Cathode

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	---	.310	---	7.87	
M	---	.350	---	8.89	Dia.
N	.020	.065	.510	1.65	
P	.060	.100	1.53	2.54	Dia.

DO203AA (D04)

Microsemi Catalog Number	Working Reverse Voltage	Peak Reverse Voltage
SBR2520	20V	20V
SBR2525	25V	25V
SBR2530	30V	30V
SBR2535	35V	35V
SBR2540	40V	40V
SBR2545	45V	45V

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- V<sub>RRM</sub> – 20 to 45V
- 25 Amperes
- Reverse Energy Tested

## Electrical Characteristics

Average forward current	I <sub>F(AV)</sub> 25 Amps	T <sub>C</sub> = 100°C, Square wave, R <sub>θJC</sub> = 1.8°C/W
Maximum surge current	I <sub>FSM</sub> 600 Amps	8.3 ms, half sine T <sub>J</sub> = 150°C
Max repetitive peak reverse current	I <sub>R(OV)</sub> 2 Amps	f = 1 KHz, 25°C, 1 μsec Square wave
Max peak forward voltage	V <sub>FM</sub> .53 Volts	I <sub>FM</sub> = 25A; T <sub>J</sub> = 150°C*
Max peak forward voltage	V <sub>FM</sub> .58 Volts	I <sub>FM</sub> = 25A; T <sub>J</sub> = 25°C*
Max peak reverse current	I <sub>RM</sub> 250 mA	V <sub>RRM</sub> , T <sub>J</sub> = 125°C*
Max peak reverse current	I <sub>RM</sub> 2 mA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical reverse current	I <sub>RM</sub> 350 uA	V <sub>RRM</sub> , T <sub>J</sub> = 25°C
Typical junction capacitance	C <sub>J</sub> 1200 pF	V <sub>R</sub> = 5.0V, T <sub>J</sub> = 25°C

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

## Thermal and Mechanical Characteristics

Storage temp range	T <sub>STG</sub>	-55°C to 175°C
Operating junction temp range	T <sub>J</sub>	-55°C to 150°C
Max thermal resistance	R <sub>θJC</sub>	1.8°C/W Junction to case
Typical thermal resistance	R <sub>θJC</sub>	1.2°C/W Junction to case
Typical thermal resistance	R <sub>θCS</sub>	0.5°C/W Case to sink
Max mounting torque		15 inch pounds maximum
Weight		0.2 ounces (6.0 grams) typical

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**Microsemi Corp.  
Colorado**

C-91

# SBR25

Figure 1  
Typical Forward Characteristics

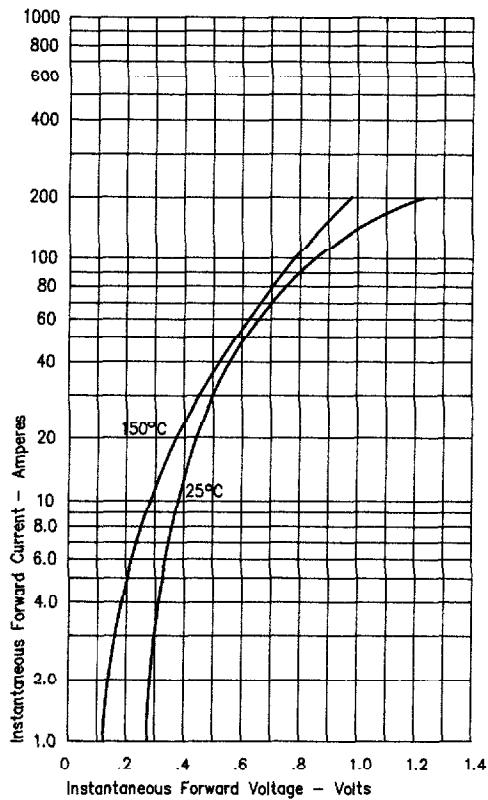


Figure 3  
Typical Junction Capacitance

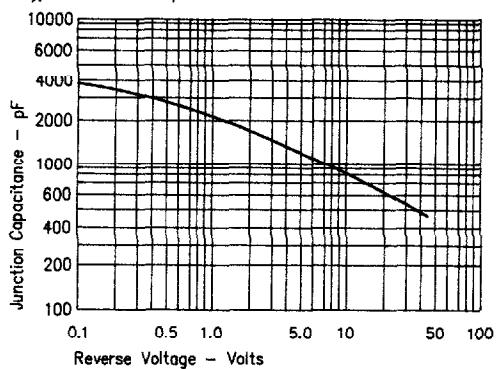


Figure 4  
Forward Current Derating

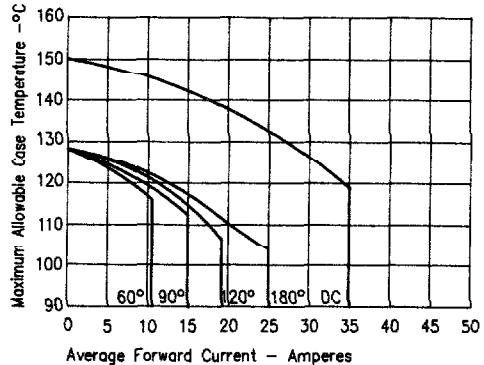


Figure 2  
Typical Reverse Characteristics

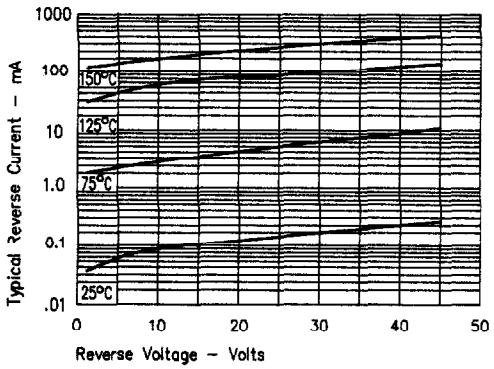


Figure 5  
Maximum Forward Power Dissipation

