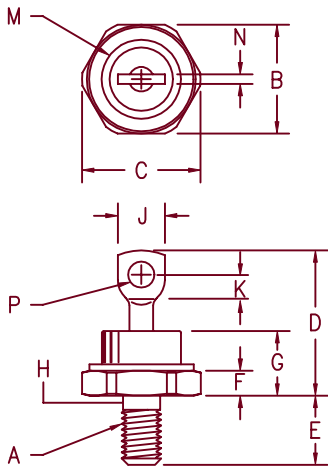


# 50 Amp Schottky Rectifier 1N6097-1N6098



- Notes:
1. Full threads within 2 1/2 threads
  2. Standard Polarity: Stud is Cathode

Dim.	Inches		Millimeter		Notes
	Minimum	Maximum	Minimum	Maximum	
A	---	---	---	---	1/4-28
B	.669	.687	17.19	17.44	
C	---	.794	---	20.16	
D	---	1.000	---	25.40	
E	.422	.453	10.72	11.50	
F	.115	.200	2.93	5.08	
G	---	.450	---	11.43	
H	.220	.249	5.58	6.32	1
J	---	.375	---	9.52	
K	.156	---	3.96	---	
M	---	.515	---	13.08	Dia.
N	---	.080	---	2.03	
P	.140	.175	3.56	4.45	Dia.

## D0203AB (D05)

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
1N6097	30V	30V
1N6098	40V	40V

- Schottky Barrier Rectifier
- 150°C Junction Temperature
- Guard Ring Protection
- VRRM - 30 to 40 Volts
- Reverse Energy Tested

### Electrical Characteristics

Average forward current	I <sub>F(AV)</sub> 50 Amps	T <sub>C</sub> = 70°C, square wave, R <sub>θJC</sub> = 1.0°C/W
Maximum surge current	I <sub>FSM</sub> 800 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> .60 Volts	I <sub>FM</sub> = 10A: T <sub>J</sub> = 25°C*
Max peak forward voltage	V <sub>FM</sub> .86 Volts	I <sub>FM</sub> = 157A: T <sub>J</sub> = 70°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
Max junction capacitance	C <sub>J</sub> 7000 pF	V <sub>R</sub> = 1.0V, 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>	-65°C to 150°C
Operating junction temp range	T <sub>J</sub>	-65°C to 150°C
Max thermal resistance	R <sub>θJC</sub>	1.0°C/W Junction to case
Max mounting torque		30 inch pounds
Weight		0.54 ounce (15.3 grams) typical

# 1N6097-1N6098

Figure 1  
Typical Forward Characteristics

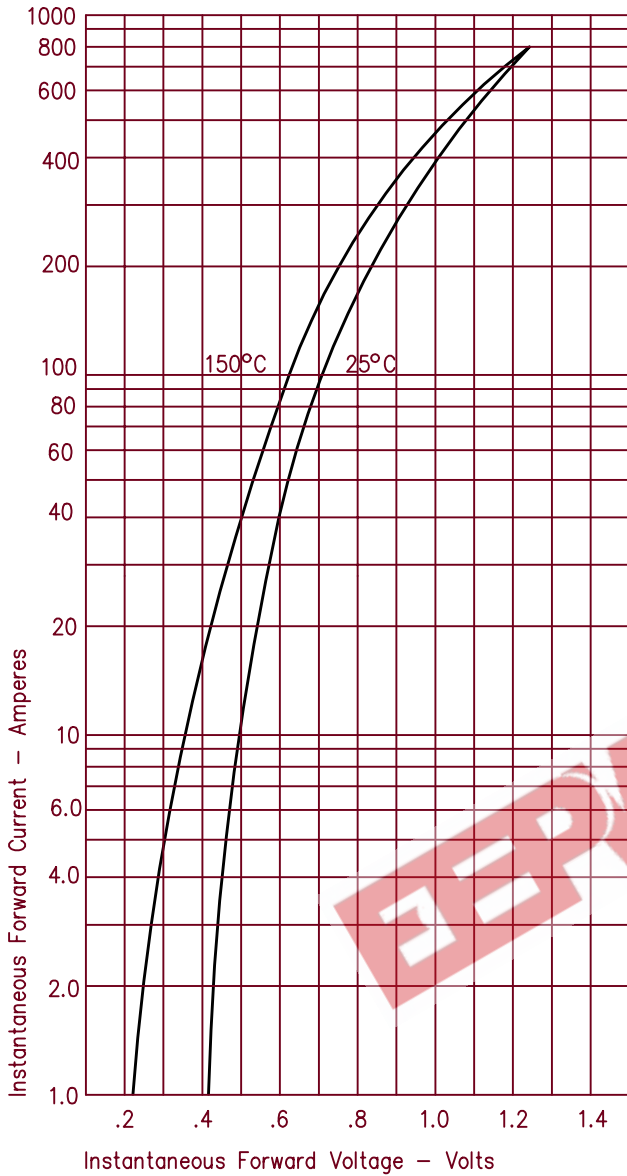


Figure 3  
Typical Junction Capacitance

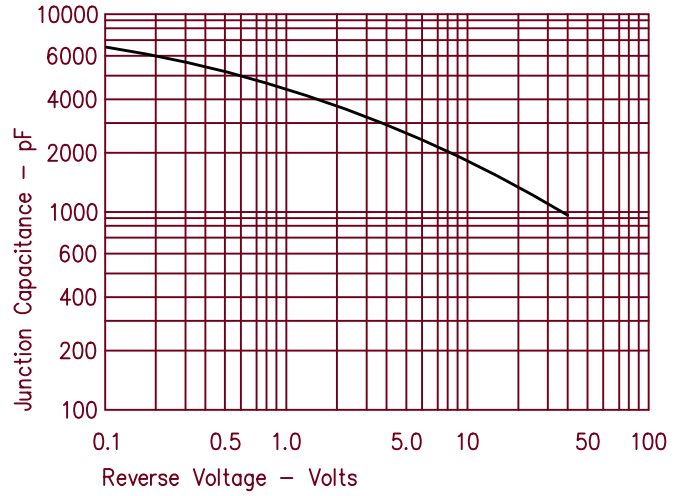


Figure 4  
Forward Current Derating

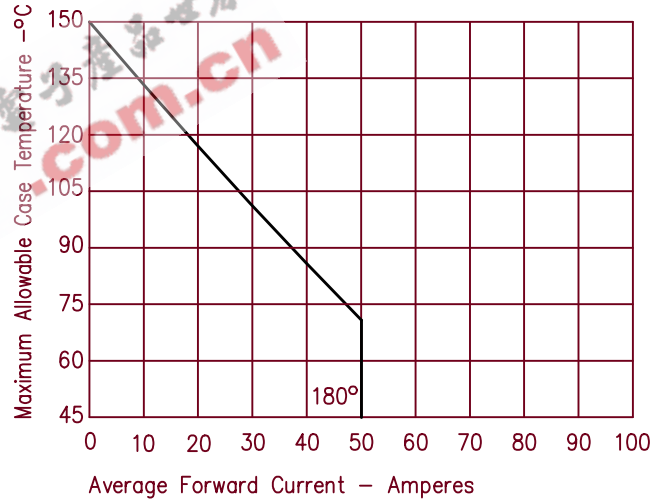


Figure 2  
Typical Reverse Characteristics

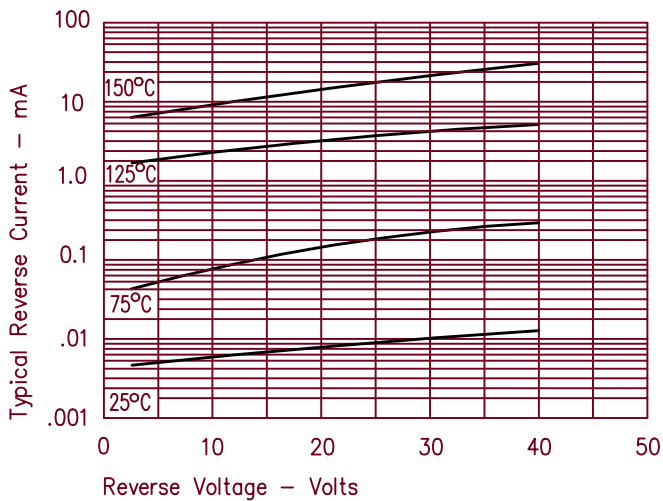


Figure 5  
Maximum Forward Power Dissipation

