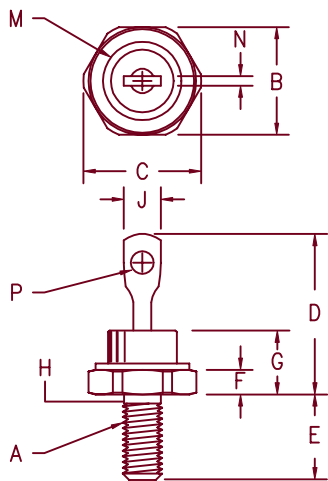


# 15 Amp Schottky Rectifier 1N5826 — 1N5828



- Notes:
1. 10-32 UNF3A threads
  2. Full threads within 2 1/2 threads
  3. 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	----	.310	----	7.87	
M	----	.350	----	8.89	Dia.
N	.020	.065	.510	1.65	
P	.060	.100	1.53	2.54	Dia.

D0203AA (D04)

Microsemi  
Catalog Number

1N5826  
1N5827  
1N5828

Working Peak  
Reverse Voltage

20V  
30V  
40V

Repetitive Peak  
Reverse Voltage

20V  
30V  
40V

\*Add the Suffix R for Reverse Polarity

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- VRRM – 20 to 40V
- 15 Amperes
- Reverse Energy Tested

## Electrical Characteristics

Average forward current	I <sub>F(AV)</sub> 15 Amps	T <sub>C</sub> = 117°C, Square wave, R <sub>θJC</sub> = 1.6°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-1N5826	V <sub>FM</sub> .67 Volts	I <sub>FM</sub> = 40A: T <sub>J</sub> = 25°C*
Max peak forward voltage-1N5827	V <sub>FM</sub> .77 Volts	I <sub>FM</sub> = 40A: T <sub>J</sub> = 25°C*
Max peak forward voltage-1N5828	V <sub>FM</sub> .87 Volts	I <sub>FM</sub> = 40A: T <sub>J</sub> = 25°C*
Max peak reverse current	I <sub>RM</sub> 2 mA	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>	1.6°C/W Junction to case
Typical thermal resistance (greased)	R <sub>θCS</sub>	0.5°C/W Case to sink
Mounting torque		12-15 inch pounds
Weight		0.2 ounces (6.0 grams) typical

# 1N5826 — 1N5828

Figure 1  
Typical Forward Characteristics

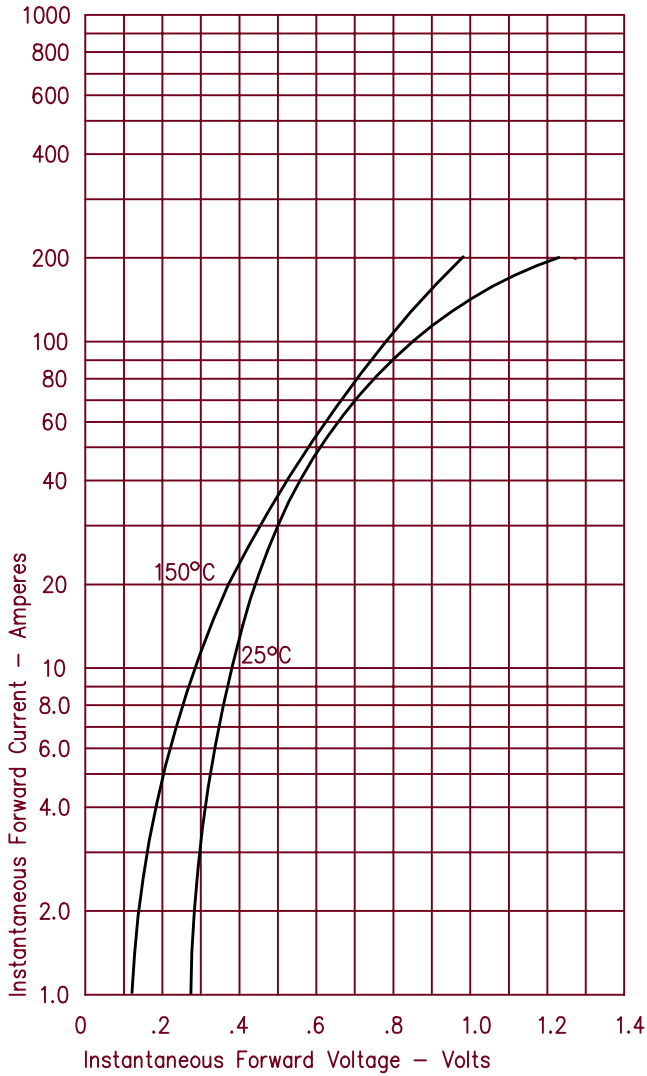


Figure 3  
Typical Junction Capacitance

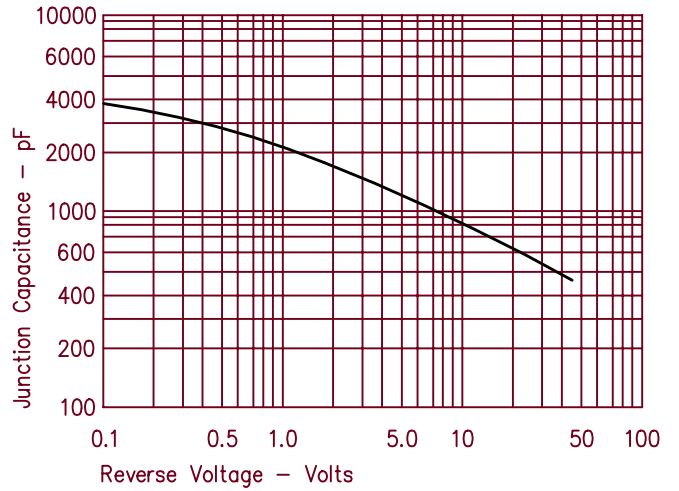


Figure 4  
Forward Current Derating

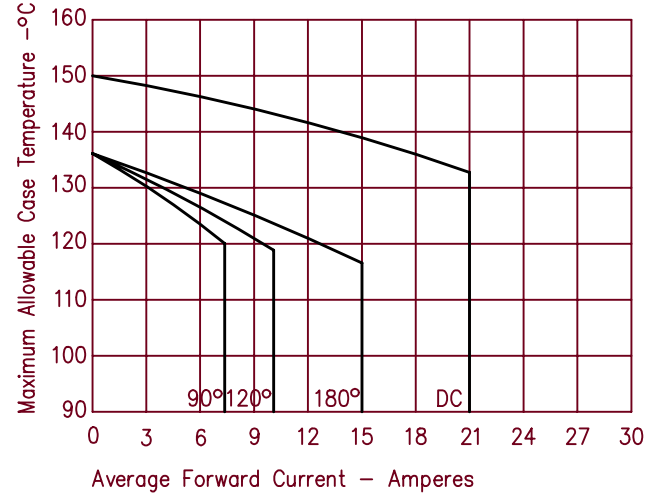


Figure 2  
Typical Reverse Characteristics

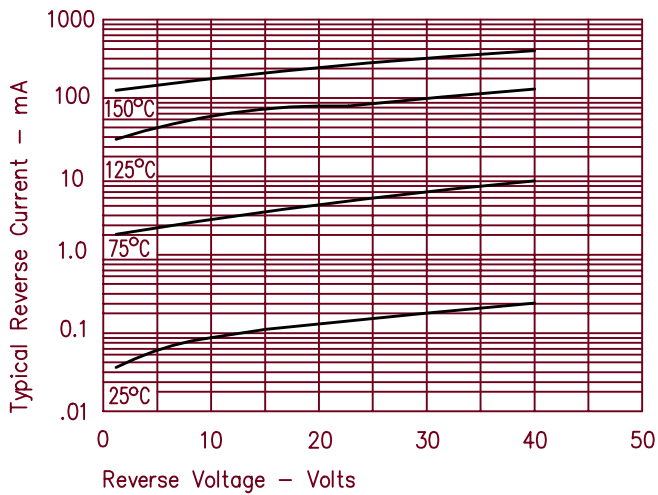


Figure 5  
Maximum Forward Power Dissipation

