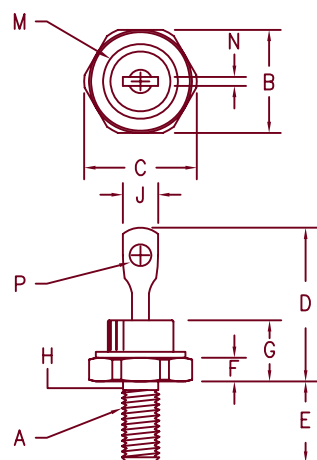


# 15 Amp Schottky Rectifier 1N5826 — 1N5828



## 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
- $V_{RRM}$  – 20 to 40V
- 15 Amperes
- Reverse Energy Tested

## Electrical Characteristics

Average forward current  
Maximum surge current  
Max repetitive peak reverse current  
Max peak forward voltage—1N5826  
Max peak forward voltage—1N5827  
Max peak forward voltage—1N5828  
Max peak reverse current  
Typical junction capacitance

$I_F(AV)$  15 Amps  
 $I_{FSM}$  600 Amps  
 $I_R(OV)$  2 Amps  
 $V_{FM}$  .67 Volts  
 $V_{FM}$  .77 Volts  
 $V_{FM}$  .87 Volts  
 $I_{RM}$  2 mA  
 $C_J$  1200 pF

$T_C = 117^\circ C$ , Square wave,  $R_{\theta JC} = 1.6^\circ C/W$   
8.3 ms, half sine  $T_J = 150^\circ C$   
 $f = 1$  KHz,  $25^\circ C$ , 1  $\mu sec$  Square wave  
 $I_{FM} = 40A: T_J = 25^\circ C^*$   
 $I_{FM} = 40A: T_J = 25^\circ C^*$   
 $I_{FM} = 40A: T_J = 25^\circ C^*$   
 $V_{RRM}, T_J = 25^\circ C$   
 $V_R = 5.0V, T_J = 25^\circ C$

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

## Thermal and Mechanical Characteristics

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

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

$-55^\circ C$  to  $175^\circ C$   
 $-55^\circ C$  to  $150^\circ C$   
 $1.6^\circ C/W$  Junction to case  
 $0.5^\circ C/W$  Case to sink  
12-15 inch pounds  
0.2 ounces (6.0 grams) typical



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# 1N5826 — 1N5828

Figure 1  
Typical Forward Characteristics

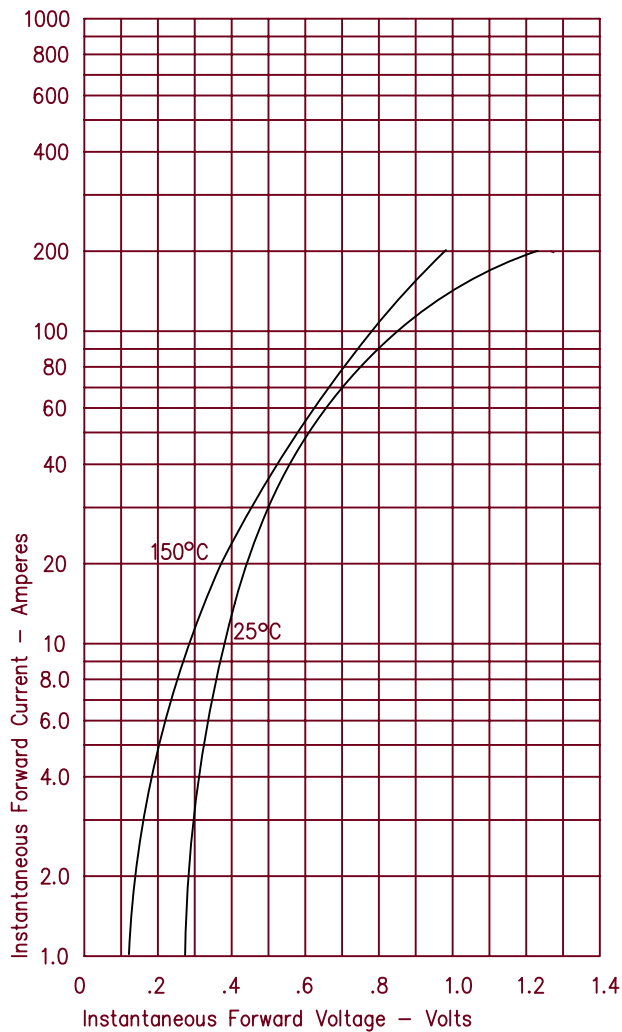


Figure 3  
Typical Junction Capacitance

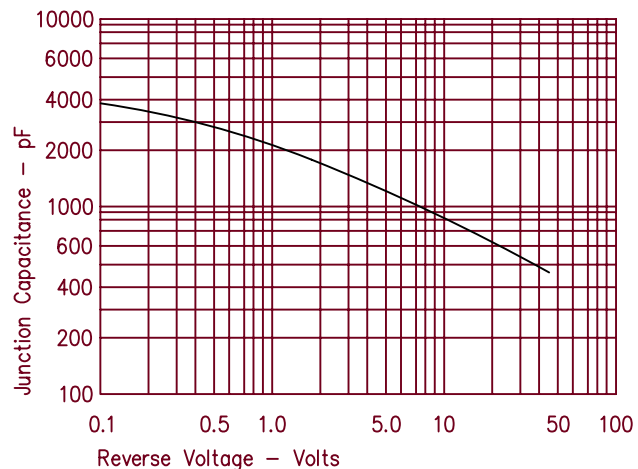


Figure 4  
Forward Current Derating

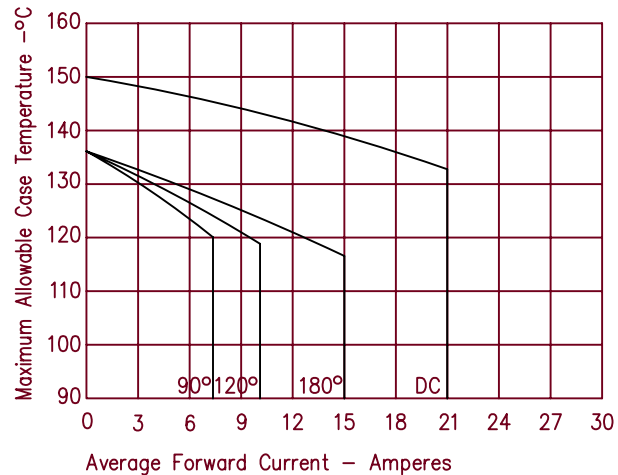


Figure 2  
Typical Reverse Characteristics

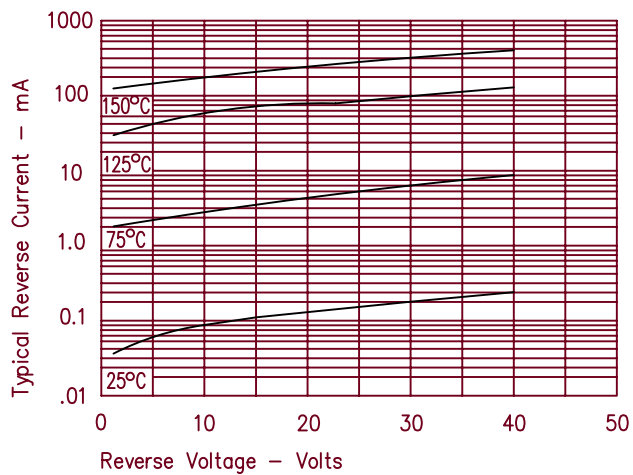


Figure 5  
Maximum Forward Power Dissipation

