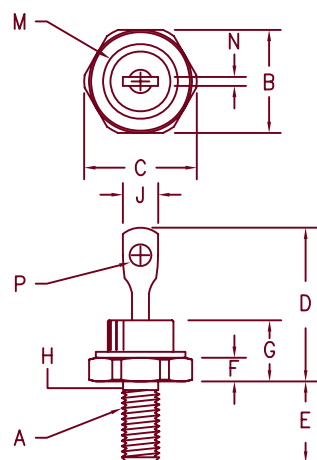


15 Amp Schottky Rectifier 1N5826 — 1N5828



- 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 μsec 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 μsec , 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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05-09-07 Rev. 1

1N5826 — 1N5828

Figure 1
Typical Forward Characteristics

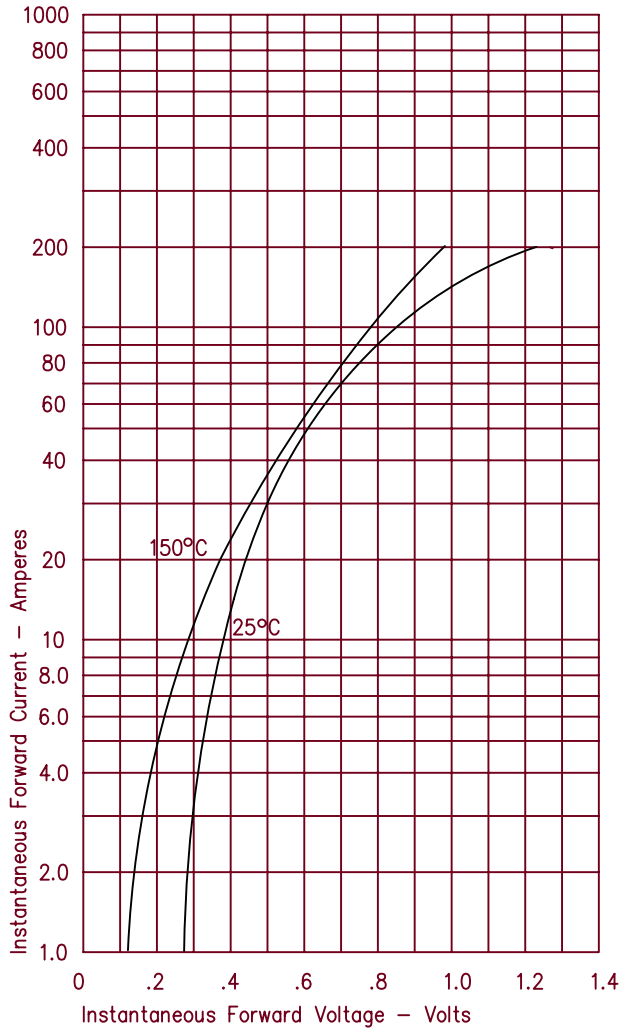


Figure 3
Typical Junction Capacitance

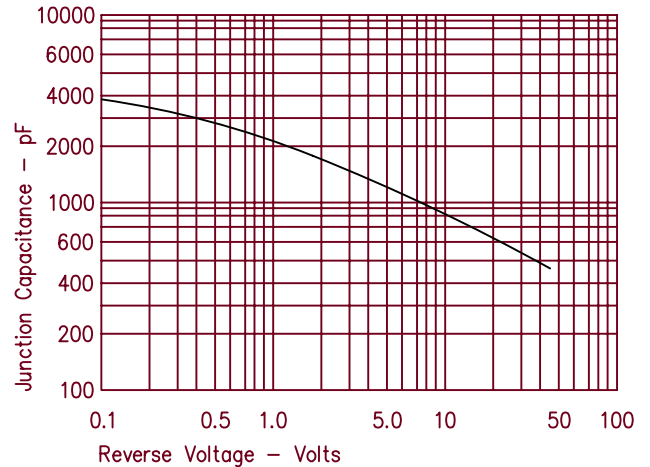


Figure 4
Forward Current Derating

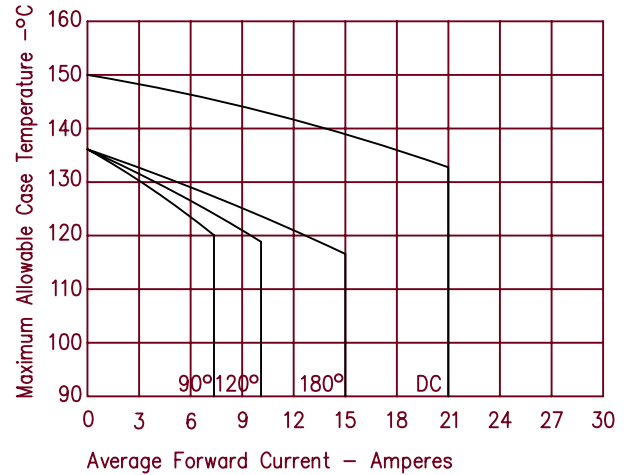


Figure 2
Typical Reverse Characteristics

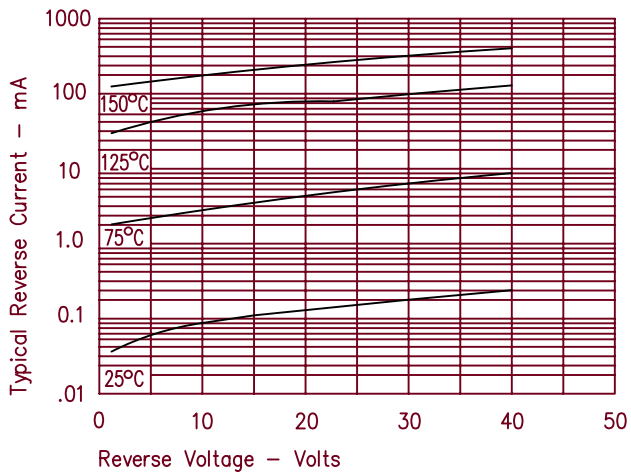


Figure 5
Maximum Forward Power Dissipation

