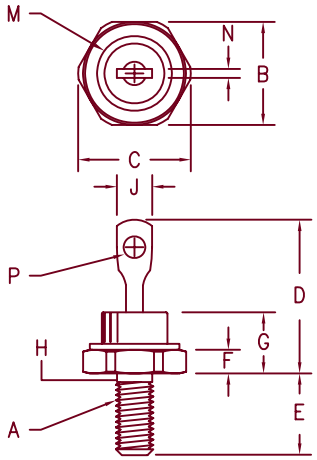
15 Amp Schottky Rectifier
1N5826 – 1N5828



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		
	Minimum	Maximum	Minimum	Maximum	Notes
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 (DO4)

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
1N5826	20V	20V
1N5827	30V	30V
1N5828	40V	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	$I_{F(AV)}$ 15 Amps	T_C = 117°C, Square wave, $R_{\theta JC}$ = 1.6°C/W
Maximum surge current	I_{FSM} 600 Amps	8.3 ms, half sine T_J = 150°C
Max repetitive peak reverse current	$I_{R(OV)}$ 2 Amps	f = 1 KHz, 25°C, 1 µsec Square wave
Max peak forward voltage–1N5826	V_{FM} .67 Volts	I_{FM} = 40A: T_J = 25°C*
Max peak forward voltage–1N5827	V_{FM} .77 Volts	I_{FM} = 40A: T_J = 25°C*
Max peak forward voltage–1N5828	V_{FM} .87 Volts	I_{FM} = 40A: T_J = 25°C*
Max peak reverse current	I_{RM} 2 mA	V_{RRM}, T_J = 25°C
Typical junction capacitance	C_J 1200 pF	V_R = 5.0V, T_J = 25°C

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

Thermal and Mechanical Characteristics

Storage temp range	T_{STG}	–55°C to 175°C
Operating junction temp range	T_J	–55°C to 150°C
Max thermal resistance	$R_{\theta JC}$	1.6°C/W Junction to case
Typical thermal resistance (greased)	$R_{\theta CS}$	0.5°C/W Case to sink
Mounting torque		12–15 inch pounds
Weight		0.2 ounces (6.0 grams) typical

LAWRENCE Microsemi
6 Lake Street
Lawrence, MA 01841
PH: (978) 620–2600
FAX: (978) 689–0803
www.microsemi.com

05–09–07 Rev. 1

1N5826 – 1N5828

Figure 1
Typical Forward Characteristics

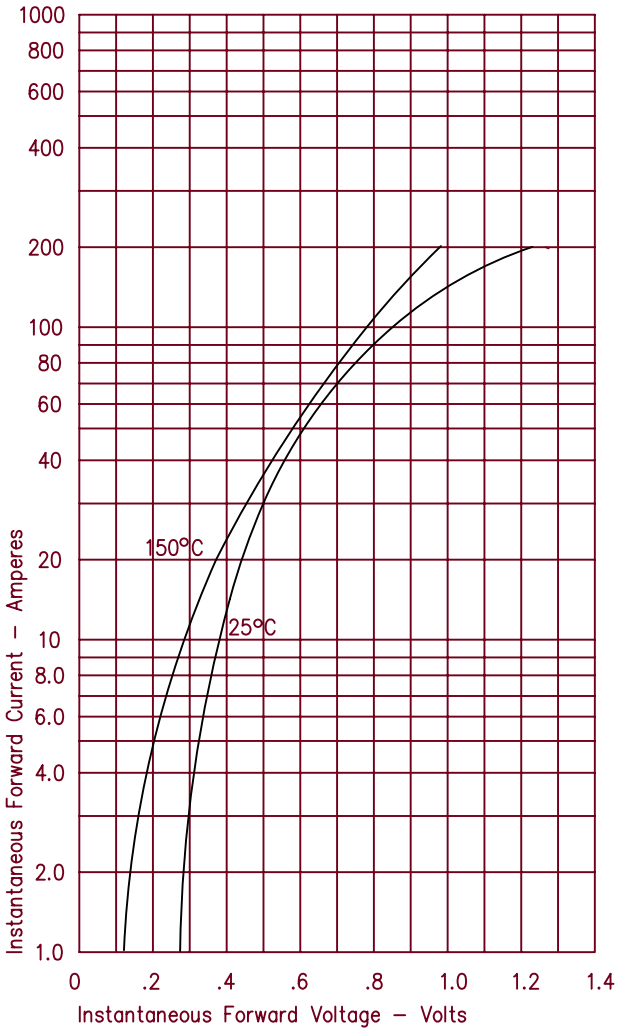


Figure 2
Typical Reverse Characteristics

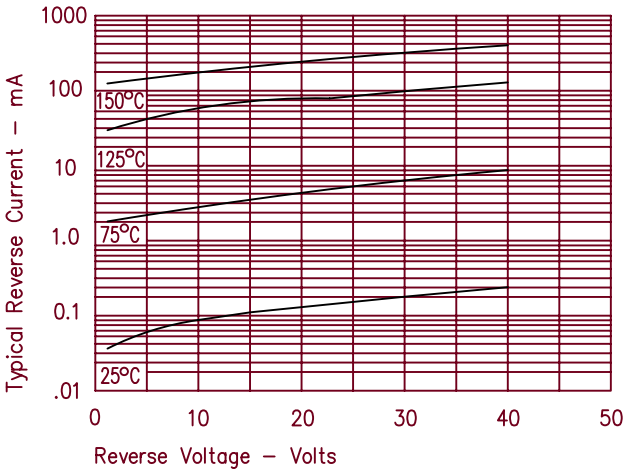


Figure 3
Typical Junction Capacitance

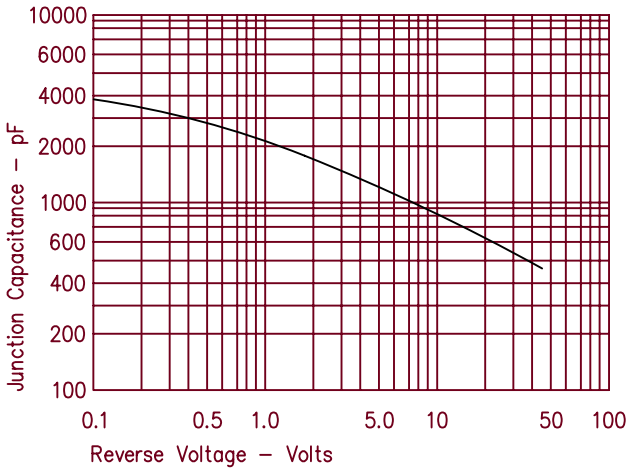


Figure 4
Forward Current Derating

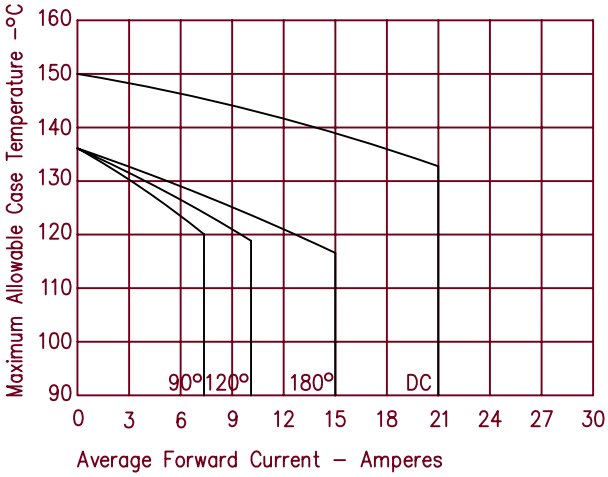


Figure 5
Maximum Forward Power Dissipation