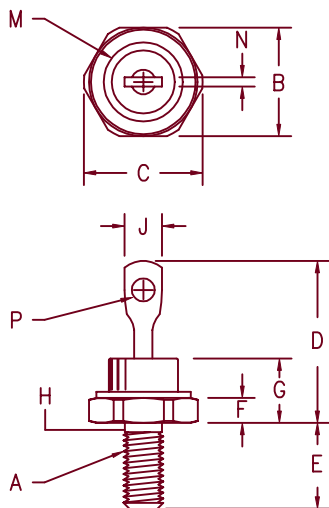


25 Amp Schottky Rectifiers

1N5829 — 1N5831



Notes:

1. 10-32 UNF3A threads
2. Full threads within 2 1/2 threads Standard Polarity: Stud is Cathode

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	2
G	---	.405	---	10.29	
H	.163	.189	4.15	4.80	
J	---	.250	---	6.35	
M	---	.350	---	8.89	
N	.020	.065	.510	1.65	Dia.
P	.060	.100	1.53	2.54	

D0203AA (D04)

Microsemi
Catalog Number

1N5829
1N5830
1N5831

Working Peak
Reverse Voltage

20V
30V
40V

Repetitive Peak
Reverse Voltage

20V
30V
40V

- Schottky Barrier Rectifier
- Guard ring protection
- Low forward voltage drop
- 25 Amperes
- 125°C Junction Temperature
- VRRM 20 to 40 volts

Electrical Characteristics

		1N5829	1N5830	1N5831	$T_C = 97^\circ\text{C}$, square wave, $R_{\theta JC} = 1.75^\circ\text{C/W}$ 8.3ms, half sine, $T_J = 125^\circ\text{C}$ $I_{FM} = 10\text{A}; T_J = 25^\circ\text{C}^*$ $I_{FM} = 25\text{A}; T_J = 25^\circ\text{C}^*$ $I_{FM} = 78.5\text{A}; T_J = 25^\circ\text{C}^*$ $V_{RRM}, T_J = 100^\circ\text{C}$ $V_{RRM}, T_J = 25^\circ\text{C}$ $T_J = 25^\circ\text{C}, V_R = 5\text{V}, f = 1\text{MHz}$
Average forward current	$I_F(\text{AV})$	25A	25A	25A	
Maximum surge current	I_{FSM}	800A	800A	800A	
Max peak forward voltage	V_{FM}	.360V	.370V	.380V	
Max peak forward voltage	V_{FM}	.440V	.460V	.480V	
Max peak forward voltage	V_{FM}	.720V	.770V	.820V	
Max peak reverse current	I_{RM}	150mA	150mA	150mA	
Max peak reverse current	I_{RM}	3.0mA	3.0mA	3.0mA	
Typical junction capacitance	C_J	1650pF	1650pF	1650pF	

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

Thermal and Mechanical Characteristics

Storage temperature range	T_{STG}	-65°C to 125°C
Operating junction temp range	T_J	-65°C to 125°C
Maximum thermal resistance	$R_{\theta JC}$	1.75°C/W junction to case
Typical thermal resistance	$R_{\theta JS}$	0.5°C/W junction to sink
Mounting torque		15 inch pounds maximum
Weight		6 grams (.02 ounces) typical

3-7-00 Rev. 2

1N5829-1N5831

Figure 1
Typical Forward Characteristics

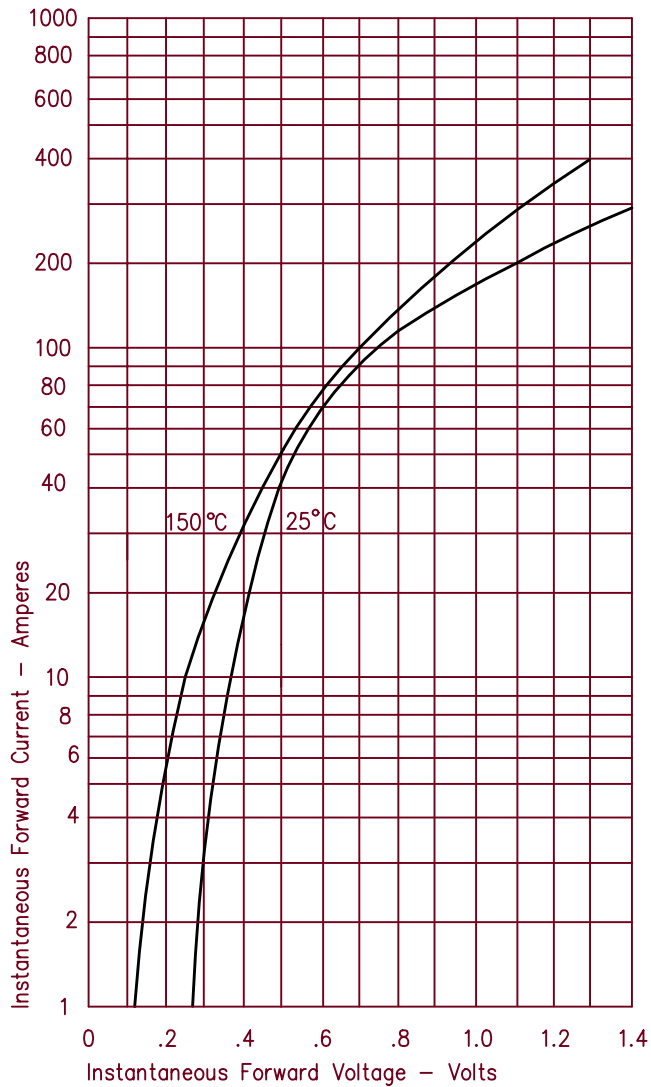


Figure 3
Typical Junction Capacitance

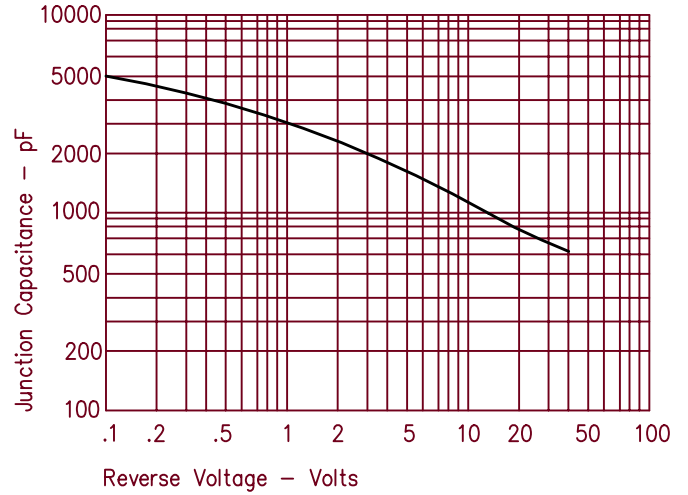


Figure 4
Maximum Forward Power Dissipation

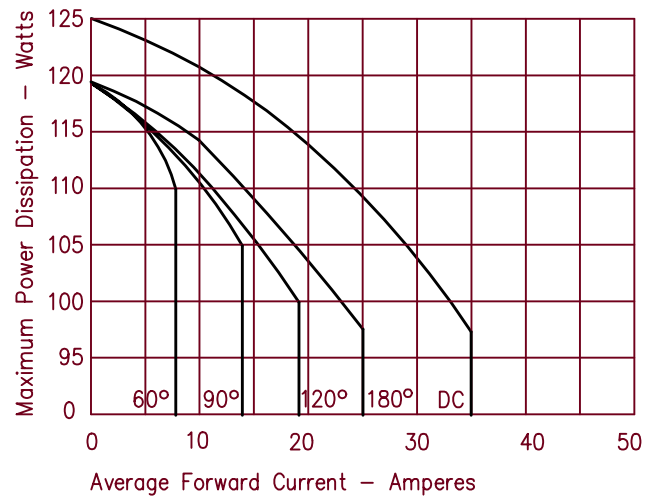


Figure 2
Typical Reverse Characteristics

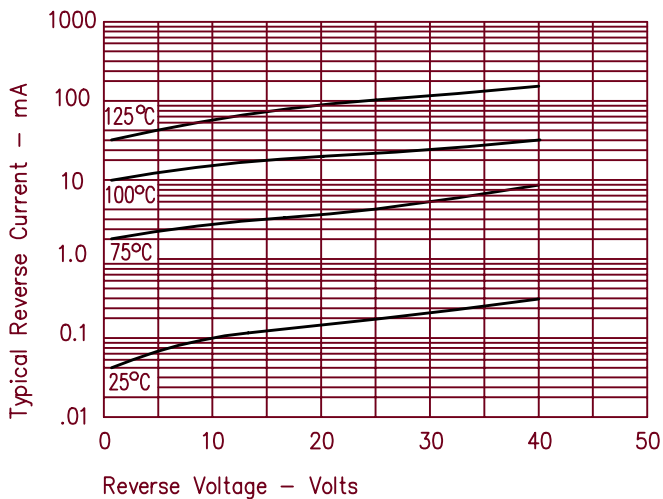


Figure 5
Maximum Forward Power Dissipation

