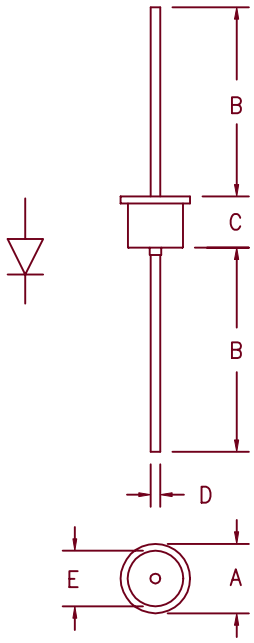
5 Amp Schottky Rectifier
1N5823, 1N5824, 1N5825



Dim.	Inches		Millimeter		
	Minimum	Maximum	Minimum	Maximum	Notes
A	---	.450	---	11.43	Dia.
B	.980	---	24.89	---	
C	---	.300	---	7.62	
D	.046	.056	1.17	1.42	Dia.
E	---	.350	---	8.89	Dia.

Microsemi Catalog Number	Working Peak Reverse Voltage	Repetitive Peak Reverse Voltage
1N5823	20V	20V
1N5824	30V	30V
1N5825	40V	40V

- Schottky Barrier Rectifier
- 125°C Junction temperature
- V_{RRM} 20 to 40 Volts
- 5 Amp current rating
- Very low forward voltage
- JAN, JANTX, JANTXV & JANS equivalent screening available

Electrical Characteristics

		1N5823	1N5824	1N5825	
Average forward current	$I_{F(AV)}$	5.0A	5.0A	5.0A	T_L = 85°C, square wave, $R_{\theta JL}$ = 12°C/W
Maximum surge current	I_{FSM}	500A	500A	500A	8.3ms, half sine, T_J = 125°C
Max peak forward voltage	V_{FM}	.330V	.340V	.350V	I_{FM} = 3.0A; T_J = 25°C*
Max peak forward voltage	V_{FM}	.360V	.370V	.380V	I_{FM} = 5.0A; T_J = 25°C*
Max peak forward voltage	V_{FM}	.470V	.490V	.520V	I_{FM} = 15.7A; T_J = 25°C*
Max peak reverse current	I_{RM}	10mA	10mA	10mA	V_{RRM}, T_J = 25°C
Max peak reverse current	I_{RM}	100mA	125mA	150mA	V_{RRM}, T_J = 100°C
Typical junction capacitance	C_J	1470pF	1470pF	1470pF	V_R = 5.0V, T_J = 25°C

*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	L = 1/4" $R_{\theta JL}$	12°C/W Junction to lead
Weight		.08 ounces (2.4 grams) typical

3-7-00 Rev. 1

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Figure 1
Typical Forward Characteristics

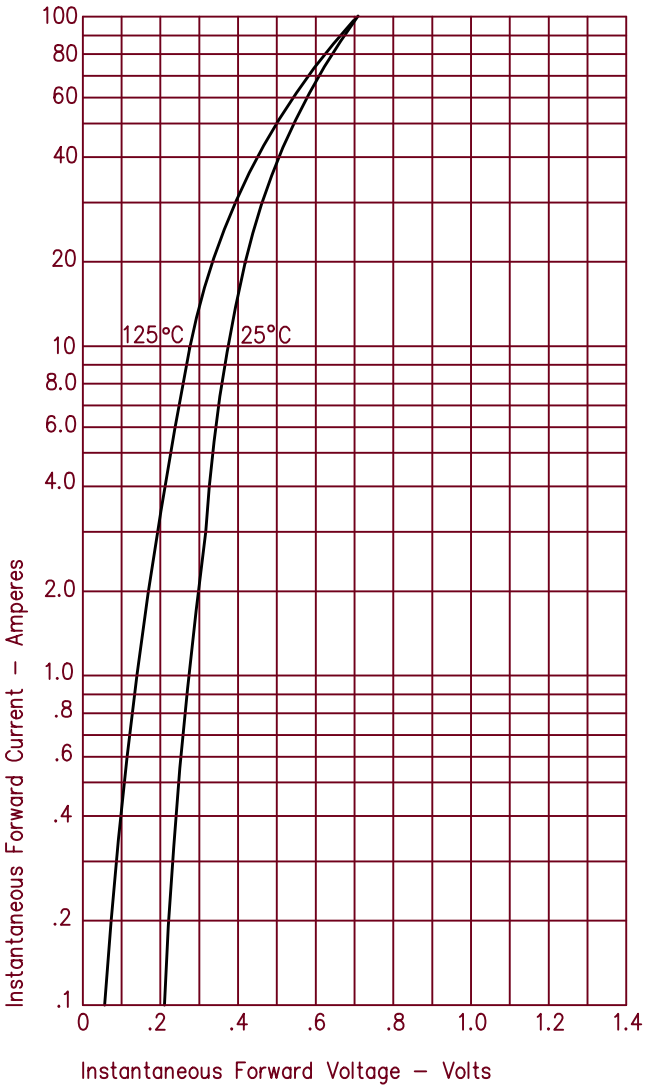

Figure 2
Typical Reverse Characteristics

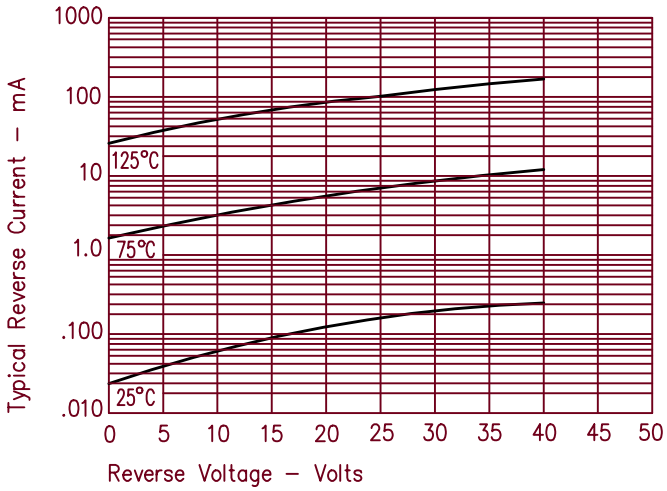

Figure 3
Typical Junction Capacitance