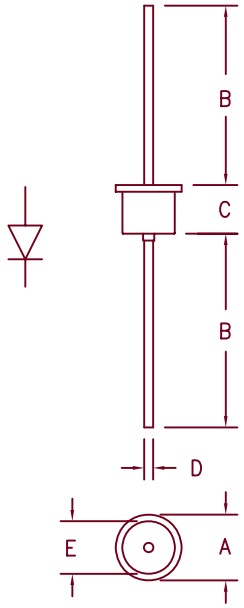
# 5 Amp Schottky Rectifier
# 1N5823, 1N5824, 1N5825




| 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 |

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05-09-07 Rev. 2

# 1N5823, 1N5824, 1N5825

Figure 1
Typical Forward Characteristics

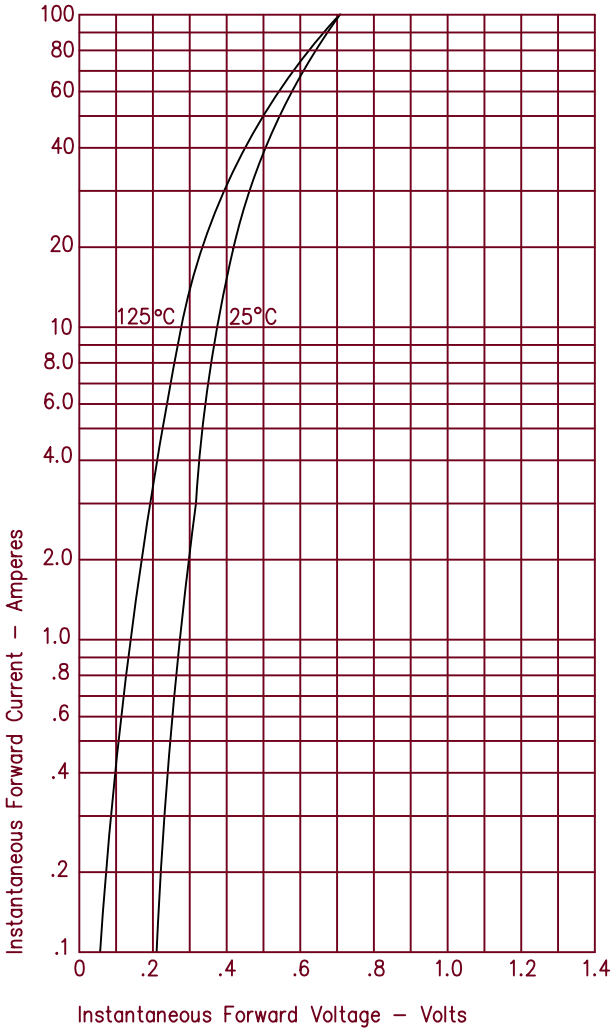



Figure 2
Typical Reverse Characteristics

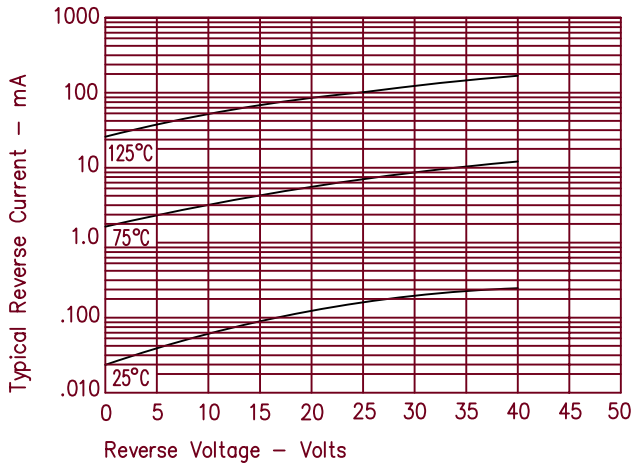



Figure 3
Typical Junction Capacitance

