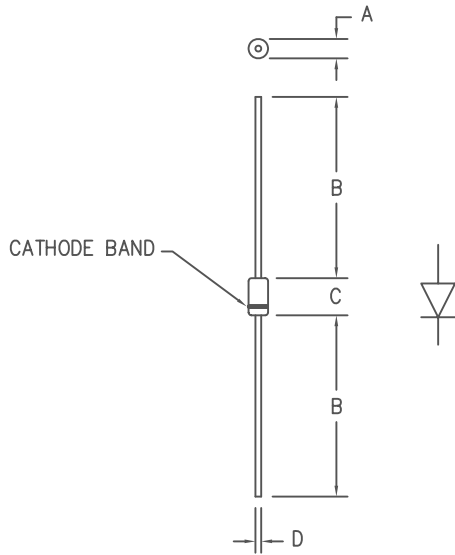


3 Amp Schottky Rectifier MSP345



| Dim. | Inches | | Millimeter | | Notes |
|------|---------|---------|------------|---------|-------|
| | Minimum | Maximum | Minimum | Maximum | |
| A | .188 | .260 | 4.78 | 6.50 | Dia. |
| B | 1.00 | --- | 25.4 | --- | |
| C | .285 | .375 | 7.24 | 9.52 | |
| D | .046 | .056 | 1.17 | 1.42 | Dia. |

PLASTIC D0201AD

| Microsemi Catalog Number | Working Peak Reverse Voltage | Repetitive Peak Reverse Voltage |
|-----------------------------|------------------------------------|---------------------------------------|
| MSP345 | 45V | 45V |

- Schottky Barrier Rectifier
- Guard Ring Protection
- Low Forward Voltage
- 150°C Junction Temperature

| Electrical Characteristics | | |
|---|--------------------|---|
| Average forward current | $I_F(AV)$ 3.0 Amps | $T_L = 82^\circ C$, Square wave, $R_{\theta JL} = 18^\circ C/W$, $L = 3/8"$ |
| Maximum surge current | I_{FSM} 150 Amps | 8.3ms, half sine, $T_J = 150^\circ C$ |
| Max peak forward voltage | V_{FM} .52 Volts | $I_{FM} = 3.0A; T_J = 25^\circ C^*$ |
| Max peak reverse current | I_{RM} 1.5 mA | $V_{RRM}, T_J = 25^\circ C$ |
| Typical junction capacitance | C_J 265 pF | $V_R = 5.0V, T_J = 25^\circ C$ |
| *Pulse test: Pulse width 300 μ sec, Duty cycle 2% | | |

| Thermal and Mechanical Characteristics | | |
|--|-----------------|---------------------------------|
| Storage temperature range | T_{STG} | $-55^\circ C$ to $175^\circ C$ |
| Operating junction temp range | T_J | $-55^\circ C$ to $150^\circ C$ |
| Maximum thermal resistance $L = 3/8"$ | $R_{\theta JL}$ | $18^\circ C/W$ Junction to lead |
| Weight | | .032 ounces (1.0 grams) typical |



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05-25-07 Rev. 3

MSP345

Figure 1
Typical Forward Characteristics

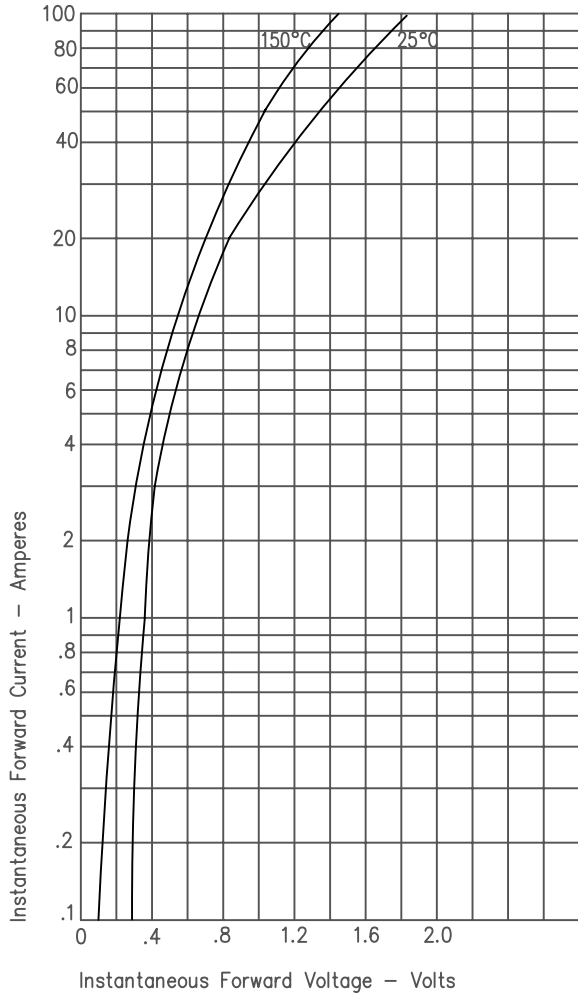


Figure 3
Typical Junction Capacitance

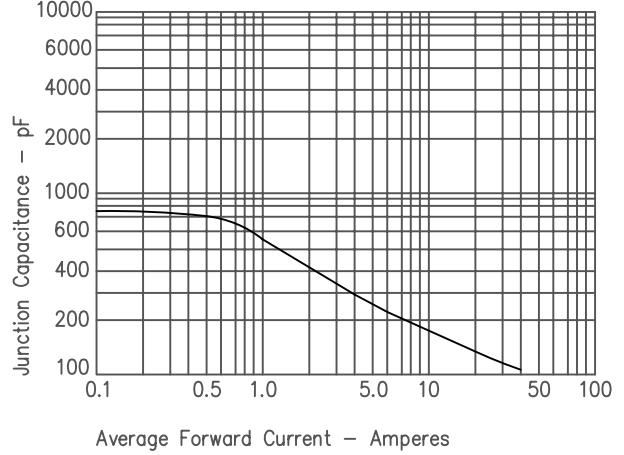


Figure 2
Typical Reverse Characteristics

