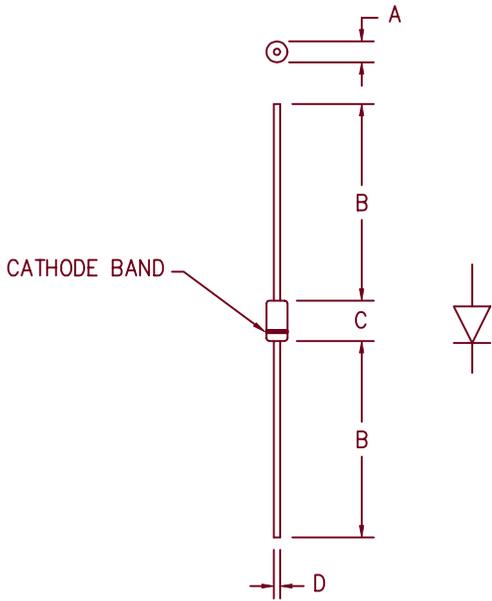


3 Amp Schottky Rectifier MSP345



| 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 | $T_A = 90^\circ C$, Square wave, $R_{\theta JL} = 52^\circ C/W$, $L = 3/8"$ 8.3ms, half sine, $T_J = 150^\circ C$ $I_{FM} = 3.0A$; $T_J = 25^\circ C^*$ $V_{RRM}, T_J = 25^\circ C$ $V_R = 5.0V, T_J = 25^\circ C$ |
| Maximum surge current | I_{FSM} 150 Amps | |
| Max peak forward voltage | V_{FM} .52 Volts | |
| Max peak reverse current | I_{RM} 1.5 mA | |
| Typical junction capacitance | C_J 265 pF | |
| | | |

*Pulse test: Pulse width 300 μ sec, Duty cycle 2%

Thermal and Mechanical Characteristics

| | | |
|---------------------------------------|-----------------|---------------------------------|
| Storage temperature range | T_{STG} | -55°C to 175°C |
| Operating junction temp range | T_J | -55°C to 150°C |
| Maximum thermal resistance $L = 0"$ | $R_{\theta JC}$ | 28°C/W Junction to case |
| Maximum thermal resistance $L = 3/8"$ | $R_{\theta JL}$ | 52°C/W Junction to lead |
| Weight | | .032 ounces (1.0 grams) typical |

MSP345

Figure 1
Typical Forward Characteristics

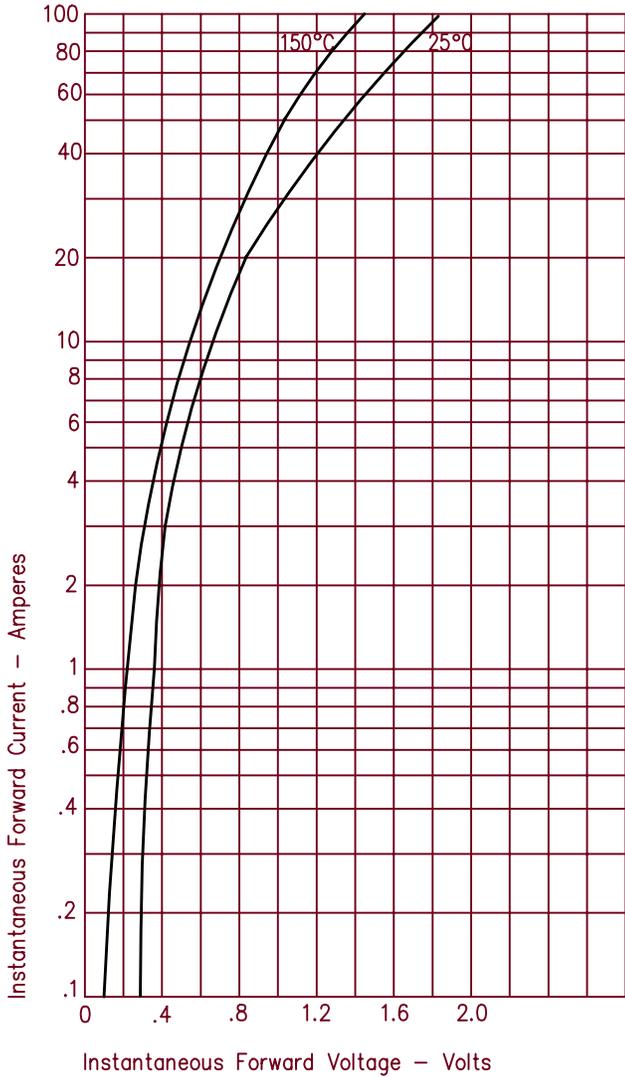


Figure 3
Typical Junction Capacitance

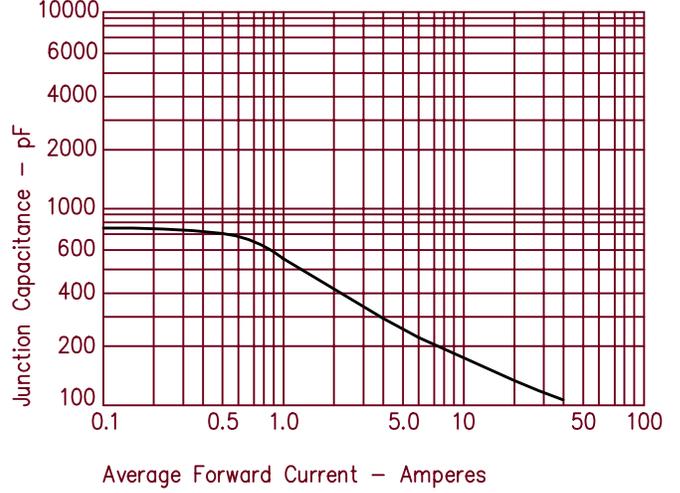


Figure 2
Typical Reverse Characteristics

