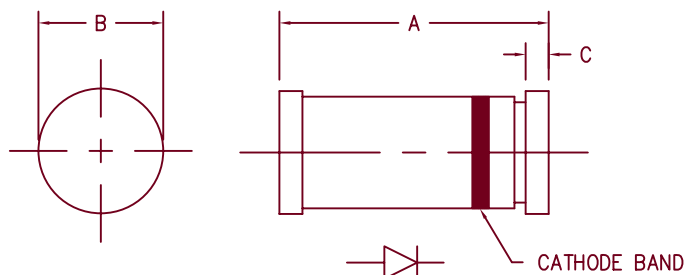


# 1 Amp Schottky Rectifier LSM140 — LSM150



| Dim. | Inches  |         | Millimeter |         | Notes |
|------|---------|---------|------------|---------|-------|
|      | Minimum | Maximum | Minimum    | Maximum |       |
| A    | .189    | .205    | 4.80       | 5.20    | Dia.  |
| B    | .094    | .105    | 2.39       | 2.66    |       |
| C    | .016    | .022    | .41        | .55     |       |

GLASS HERMETIC D0213AB

| Microsemi<br>Catalog Number | Working<br>Peak Reverse<br>Voltage | Repetitive<br>Peak Reverse<br>Voltage | Device<br>Marking |
|-----------------------------|------------------------------------|---------------------------------------|-------------------|
| LSM140                      | 40V                                | 40V                                   | L140              |
| LSM145                      | 45V                                | 45V                                   | L145              |
| LSM150                      | 50V                                | 50V                                   | L150              |

- Low Forward Voltage
- Schottky Barrier Rectifier
- Guard Ring Protection
- 150°C Junction Temperature
- $V_{RRM}$  40 to 50 Volts

## Electrical Characteristics

Average forward current  
Maximum surge current  
Max peak forward voltage  
Max peak forward voltage  
Max peak reverse current  
Typical junction capacitance

$I_F(AV)$  1.0 Amps  
 $I_{FSM}$  50 Amps  
 $V_{FM}$  .39 Volts  
 $V_{FM}$  .58 Volts  
 $I_{RM}$  1.0 mA  
 $C_J$  60pF

$T_A = 124^\circ\text{C}$ , Square wave,  $R_{\theta JC} = 45^\circ\text{C/W}$   
8.3ms, half sine,  $T_J = 150^\circ\text{C}$   
 $I_{FM} = 0.1A: T_J = 25^\circ\text{C}^*$   
 $I_{FM} = 1.0A: T_J = 25^\circ\text{C}^*$   
 $V_{RRM}, T_J = 25^\circ\text{C}$   
 $V_R = 5.0V, T_J = 25^\circ\text{C}$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ . Duty cycle 2%

## Thermal and Mechanical Characteristics

Storage temperature range  
Operating junction temp range  
Typical thermal Resistance  
Weight

$T_{STG}$   
 $T_J$   
 $R_{\theta JC}$

$-65^\circ\text{C}$  to  $150^\circ\text{C}$   
 $-65^\circ\text{C}$  to  $150^\circ\text{C}$   
45°C/W Junction to Case  
.0047 ounces (.012 grams) typical



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05-15-07 Rev. 1

# LSM140 — LSM150

Figure 1  
Maximum Forward Characteristics

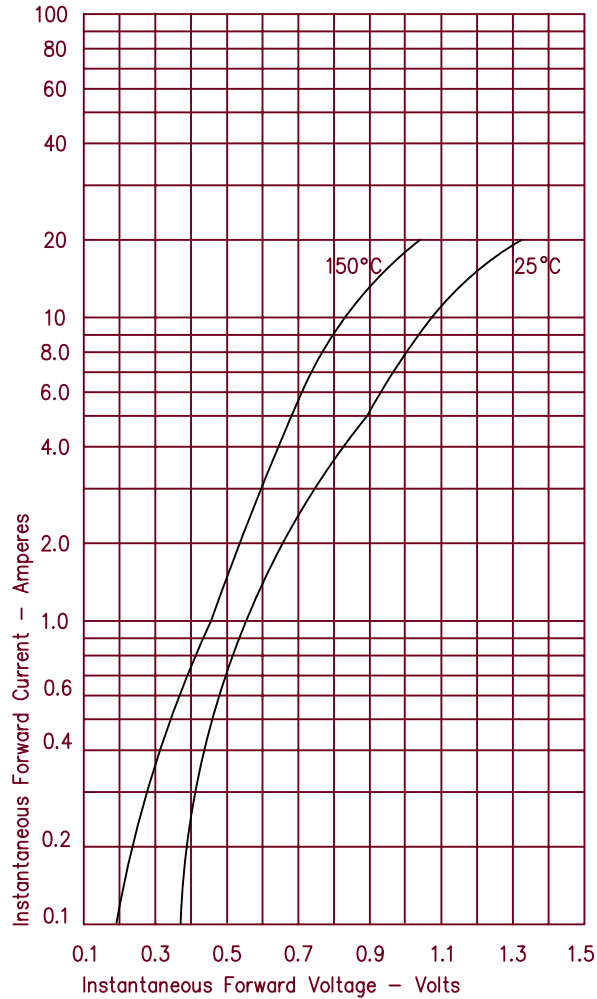


Figure 3  
Typical Junction Capacitance

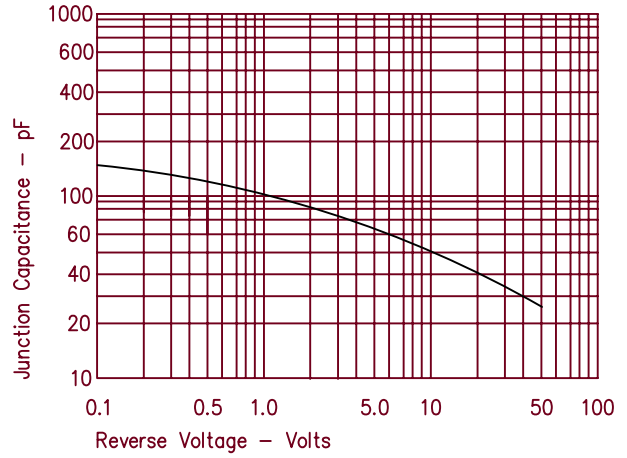


Figure 2  
Typical Reverse Characteristics

