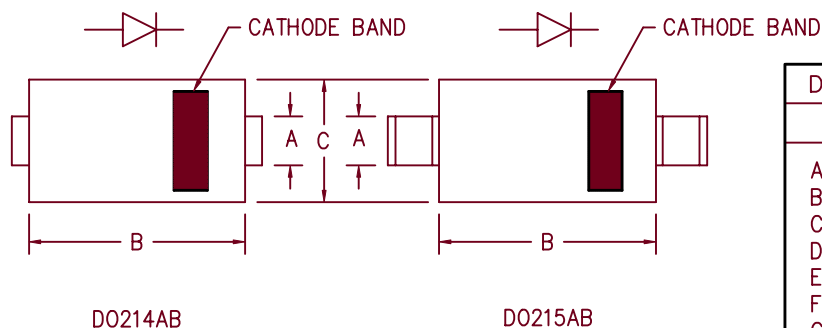
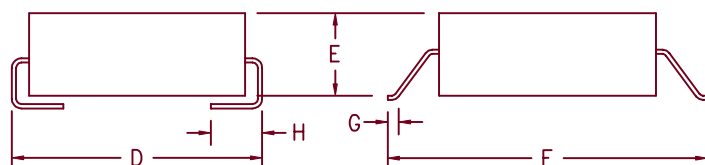


# 3 Amp Schottky OR'ing Rectifier LSM315



| Dim. | Inches  |         | Millimeter |         | Notes |
|------|---------|---------|------------|---------|-------|
|      | Minimum | Maximum | Minimum    | Maximum |       |
| A    | .117    | .123    | 2.97       | 3.12    |       |
| B    | .260    | .280    | 6.60       | 7.11    |       |
| C    | .220    | .245    | 5.59       | 6.22    |       |
| D    | .307    | .322    | 7.80       | 8.18    |       |
| E    | .075    | .095    | 1.91       | 2.41    |       |
| F    | .380    | .400    | 9.65       | 10.16   |       |
| G    | .025    | .040    | .640       | 1.02    |       |
| H    | .030    | .060    | .760       | 1.52    |       |



| Microsemi<br>Catalog Number | Industry<br>Part Number | Working Peak<br>Reverse Voltage | Repetitive Peak<br>Reverse Voltage |
|-----------------------------|-------------------------|---------------------------------|------------------------------------|
| LSM315                      | 30BQ015                 | 15V                             | 15V                                |

\* Add Suffix J for J Lead or G for Gull Wing Lead Configuration

- Schottky Barrier Rectifier
- $V_f @ 3A, 100^\circ C = 0.22V$
- $125^\circ C$  Junction temperature
- Reverse Energy Tested

## Electrical Characteristics

|                                 |                     |                                            |
|---------------------------------|---------------------|--------------------------------------------|
| Average forward current         | $I_F(AV)$ 3 Amps    | $T_L = 74^\circ C$                         |
| Maximum surge current           | $I_{FSM}$ 150 Amps  | 8.3ms, half sine                           |
| Max. repetitive reverse current | $V_{FM}$ 2 Amps     | $f = 1KHZ, 25^\circ C, 1\mu s$ square wave |
| Max. peak forward voltage       | $V_{FM}$ 0.32 Volts | $I_{FM} = 3A: T_J = 25^\circ C^*$          |
| Typ. peak forward voltage       | $I_{RM}$ 0.22 Volts | $I_{FM} = 3A: T_J = 100^\circ C^*$         |
| Max. peak reverse voltage       | $I_{RM}$ 2 mA       | $V_{RRM, T_J} = 25^\circ C$                |
| Typ. peak reverse voltage       | $I_{RM}$ 70 mA      | $V_{RRM, T_J} = 100^\circ C$               |
| Typ. peak reverse voltage       | $I_{RM}$ 40 mA      | $V_R = 5.0V, T_J = 100^\circ C$            |
| Typical junction capacitance    | $C_J$ 600 pF        | $V_R = 5.0V, T_J = 25^\circ C$             |

\*Pulse test: Pulse width 300  $\mu sec$ , Duty cycle 2%

## Thermal and Mechanical Characteristics

|                                               |                 |                                |
|-----------------------------------------------|-----------------|--------------------------------|
| Storage temperature range                     | $T_{STG}$       | $-55^\circ C$ to $150^\circ C$ |
| Operating junction temp range                 | $T_J$           | $-55^\circ C$ to $125^\circ C$ |
| Maximum thermal resistance - Junction to Lead | $R_{\theta JL}$ | $22^\circ C/W$                 |

9-27-02 Rev. IR

# LSM315

Figure 1  
Typical Forward Characteristics

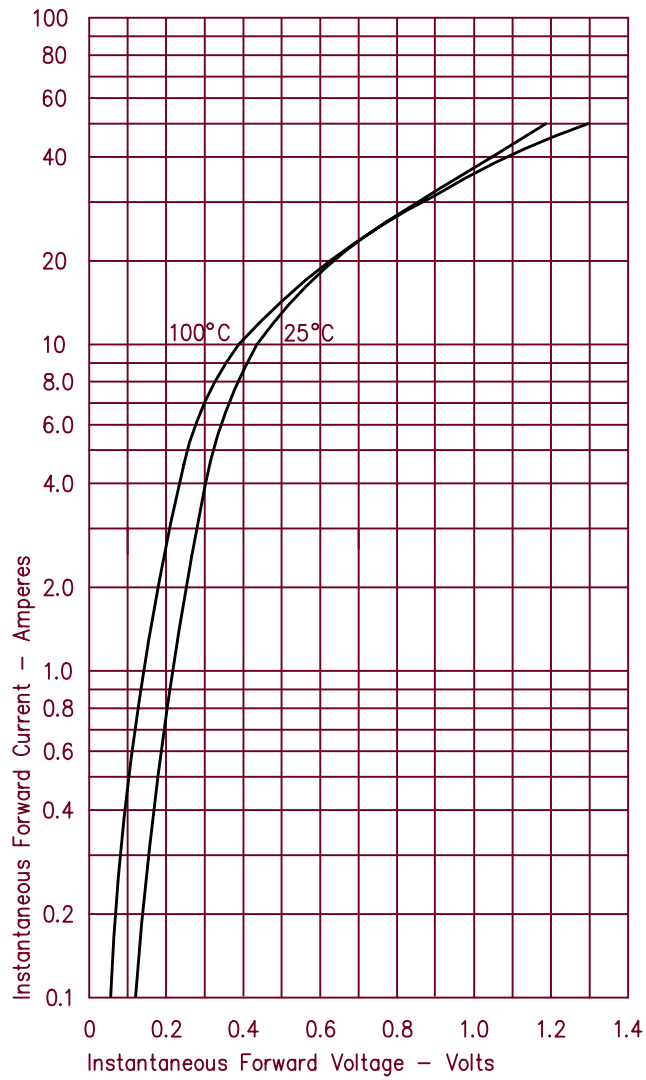


Figure 3  
Typical Junction Capacitance

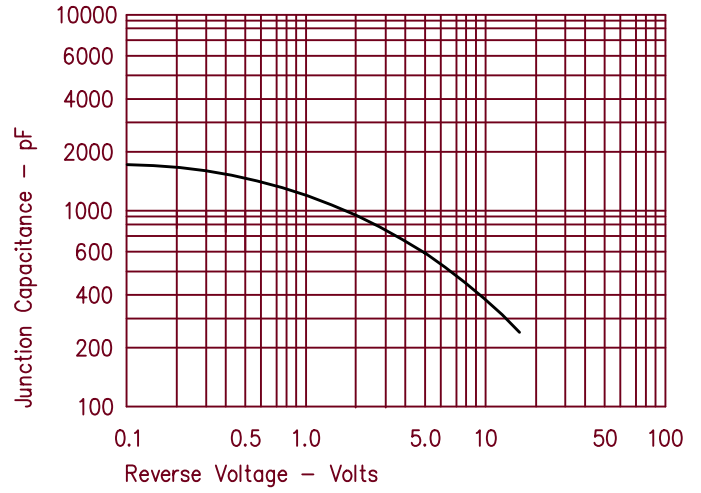


Figure 2  
Typical Reverse Characteristics

