

## FDH/FDLL 400



DO-35



LL-34

THE PLACEMENT OF THE EXPANSION GAP  
HAS NO RELATIONSHIP TO THE LOCATION  
OF THE CATHODE TERMINAL

### COLOR BAND MARKING

| DEVICE  | 1ST BAND | 2ND BAND |
|---------|----------|----------|
| FDLL400 | BROWN    | VIOLET   |

## High Voltage General Purpose Diode

Sourced from Process 1J. See MMBD1401-1405 for characteristics.

### Absolute Maximum Ratings\*

TA = 25°C unless otherwise noted

| Symbol         | Parameter                                                                               | Value       | Units  |
|----------------|-----------------------------------------------------------------------------------------|-------------|--------|
| $W_{IV}$       | Working Inverse Voltage <b>FDH/FDLL400</b>                                              | 150         | V      |
| $I_O$          | Average Rectified Current                                                               | 200         | mA     |
| $I_F$          | DC Forward Current                                                                      | 500         | mA     |
| $i_f$          | Recurrent Peak Forward Current                                                          | 600         | mA     |
| $i_{f(surge)}$ | Peak Forward Surge Current<br>Pulse width = 1.0 second<br>Pulse width = 1.0 microsecond | 1.0<br>4.0  | A<br>A |
| $T_{stg}$      | Storage Temperature Range                                                               | -65 to +200 | °C     |
| $T_J$          | Operating Junction Temperature                                                          | 175         | °C     |

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

### NOTES:

- 1) These ratings are based on a maximum junction temperature of 200 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

### Thermal Characteristics

TA = 25°C unless otherwise noted

| Symbol          | Characteristic                                | Max                 | Units       |
|-----------------|-----------------------------------------------|---------------------|-------------|
|                 |                                               | <b>FDH/FDLL 400</b> |             |
| $P_D$           | Total Device Dissipation<br>Derate above 25°C | 500<br>3.33         | mW<br>mW/°C |
| $R_{\theta JA}$ | Thermal Resistance, Junction to Ambient       | 300                 | °C/W        |

High Voltage General Purpose Diode  
(continued)

Electrical Characteristics

TA = 25°C unless otherwise noted

| Symbol | Parameter                                | Test Conditions                              | Min | Max        | Units    |
|--------|------------------------------------------|----------------------------------------------|-----|------------|----------|
| BV     | Breakdown Voltage <b>FDH/FDLL400</b>     | IR = 100 µA                                  | 200 |            | V        |
| IR     | Reverse Current <b>FDH/FDLL400</b>       | VR = 150 V<br>VR = 150 V, TA = 150°C         |     | 100<br>100 | nA<br>µA |
| VF     | Forward Voltage <b>FDH/FDLL400</b>       | IF = 200 mA<br>IF = 300 mA                   |     | 1.0<br>1.1 | V<br>V   |
| Co     | Diode Capacitance <b>FDH/FDLL400</b>     | VR = 0, f = 1.0 MHz                          |     | 2.0        | pF       |
| Trr    | Reverse Recovery Time <b>FDH/FDLL400</b> | IF = IR = 30 mA, Irr = 3.0 mA,<br>RL = 100 Ω |     | 50         | nS       |

FDH400 / FDLL400

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