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# FJH1100

## Ultra Low Leakage Diode

### General Description

An Ultra low leakage diode in the DO-35 package. The forward voltage is typically greater than 0.5 volts at 1.0 micro-ampere.

This product is light sensitive, any damage to the body coating will affect the reverse leakage when exposed to light.



**DO-35**

Color Band Denotes Cathode

### Absolute Maximum Ratings \* $T_a = 25^\circ\text{C}$ unless otherwise noted

| Symbol          | Parameter                                            | Value       | Units                     |
|-----------------|------------------------------------------------------|-------------|---------------------------|
| $W_{IV}$        | Working Inverse Voltage                              | 15          | V                         |
| $I_F$           | DC Forward Current ( $I_F$ )                         | 150         | mA                        |
| $P_D$           | Total Power Dissipation at $T_A = 25^\circ\text{C}$  | 250         | mW                        |
|                 | Linear Derating Factor from $T_A = 25^\circ\text{C}$ | 1.67        | mW/ $^\circ\text{C}$      |
| $R_{\theta JA}$ | Thermal Resistance Junction-to-Ambient               | 300         | $^\circ\text{C}/\text{W}$ |
| $T_{STG}$       | Storage Temperature                                  | -55 to +200 | $^\circ\text{C}$          |
| $T_J$           | Operating Junction Temperature                       | 175         | $^\circ\text{C}$          |

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

### Electrical Characteristics $T_a = 25^\circ\text{C}$ unless otherwise noted

| Symbol | Parameter         | Test Conditions                                                                                                                                                         | Min | Typ.                                           | Max.      | Units                                 |
|--------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|------------------------------------------------|-----------|---------------------------------------|
| $B_V$  | Breakdown Voltage | $I_R = 5.0\mu\text{A}$                                                                                                                                                  | 30  |                                                |           | V                                     |
| $I_R$  | Reverse Leakage   | $V_R = 5.0\text{V}$<br>$V_R = 15\text{V}$                                                                                                                               |     |                                                | 3.0<br>10 | pA<br>pA                              |
| $V_F$  | Forward Voltage   | $I_F = 1.0\mu\text{A}$<br>$I_F = 10\mu\text{A}$<br>$I_F = 100\mu\text{A}$<br>$I_F = 1.0\text{mA}$<br>$I_F = 10\text{mA}$<br>$I_F = 50\text{mA}$<br>$I_F = 100\text{mA}$ |     | 530<br>605<br>685<br>780<br>895<br>995<br>1.07 | 1050      | mV<br>mV<br>mV<br>mV<br>mV<br>mV<br>V |
| $C_T$  | Diode Capacitance | $V_R = 0\text{V}$ , $f = 1.0\text{MHz}$                                                                                                                                 |     |                                                | 2.0       | pF                                    |

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