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# FJH1102

## Information Only Data Sheet

FINAL REVERSE CURRENT & FORWARD VOLTAGE LIMITS MIGHT BE INCREASED SLIGHTLY

### 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.

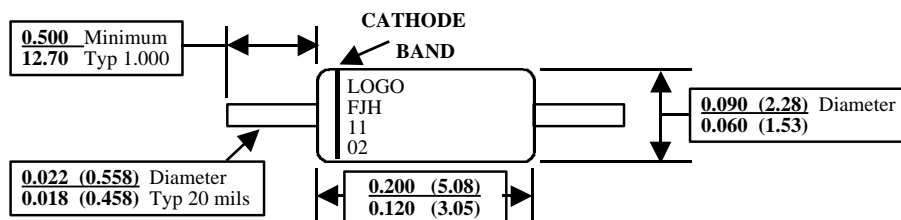
This product is light sensitive, any damage to the body coating will affect the reverse leakage when exposed to light.

## Ultra Low Leakage Diode

### Absolute Maximum Ratings\* TA = 25°C unless otherwise noted

| Sym              | Parameter   | Value       | Units |
|------------------|---|-------------|-------|
| T <sub>stg</sub> | Storage Temperature                               | -55 to +200 | °C    |
| T <sub>J</sub>   | Operating Junction Temperature                    | 175         | °C    |
| P <sub>D</sub>   | Total Power Dissipation at T <sub>A</sub> = 25°C  | 250         | mW    |
|                  | Linear Derating Factor from T <sub>A</sub> = 25°C | 1.67        | mW/°C |
| R <sub>OJA</sub> | Thermal Resistance Junction-to-Ambient            | 300         | °C/W  |
| W <sub>IV</sub>  | Working Inverse Voltage                           | 25          | V     |
| I <sub>F</sub>   | DC Forward Current (I <sub>F</sub> )              | 150         | mA    |

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



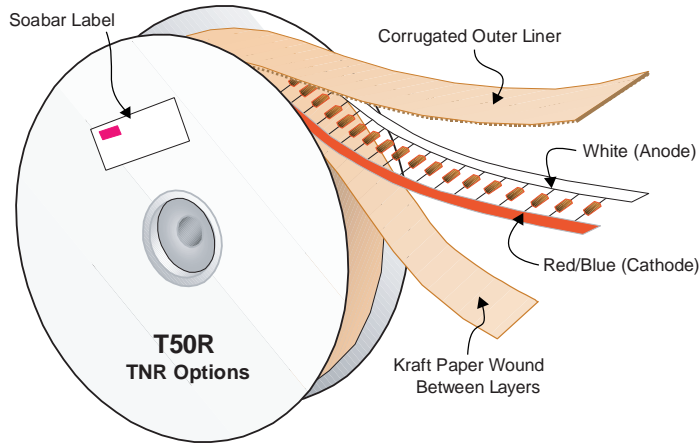
### Electrical Characteristics TA = 25°C unless otherwise noted

| SYM            | CHARACTERISTICS   | MIN               | MAX                       | UNITS               | TEST CONDITIONS   |
|----------------|-------------------|-------------------|---------------------------|---------------------|---|
| B <sub>V</sub> | Breakdown Voltage | 30                |                           | V                   | I <sub>R</sub> = 5.0 uA   |
| I <sub>R</sub> | Reverse Leakage   |                   | 100                       | pA                  | V <sub>R</sub> = 25 V   |
| V <sub>F</sub> | Forward Voltage   | 500<br>650<br>750 | 600<br>750<br>850<br>1.10 | mV<br>mV<br>mV<br>V | I <sub>F</sub> = 1.0 uA<br>I <sub>F</sub> = 100 uA<br>I <sub>F</sub> = 1.0 mA<br>I <sub>F</sub> = 10 mA |
| C <sub>T</sub> | Diode Capacitance |                   | 3.5                       | pF                  | V <sub>R</sub> = 0 V, f = 1.0 MHz   |

**DO-35 Tape and Reel Data**



**DO-35 Packaging Configuration: Figure 1.0**



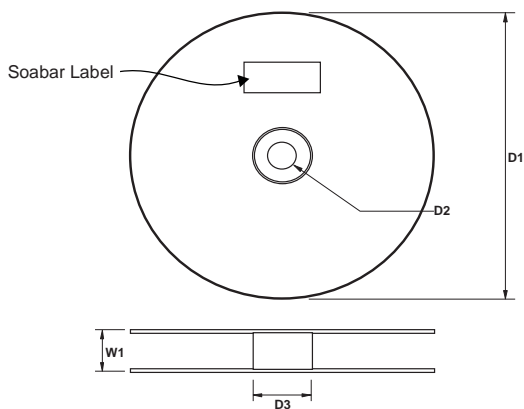
**DO-35 Packaging Information Table: Figure 2.0**

| DO-35 Packaging Information |            |             |                         |
|-----------------------------|------------|-------------|-------------------------|
| Packaging Option            | T50R       | T50A        | Standard (no flow code) |
| Packaging type              | TNR        | Ammo        | Bag                     |
| Qty per Reel/Tube/Bag       | 10,000     | 5,000       | 500                     |
| Reel Size (inch diameter)   | 13         | -           | -                       |
| Inside Tape Spacing (mm)    | 52         | 52          | -                       |
| Int Box Dimension (mm)      | 254x79x794 | 406x267x184 | 279x133x108             |
| Max qty per Box             | 30,000     | 50,000      | 5,000                   |
| Weight per unit (gm)        | 0.137      | 0.137       | 0.137                   |
| Weight per Reel/Ammo (kg)   | 2.23       | 0.800       | -                       |
| Note/Comments               |            |             | Bulk                    |

Soabar Label sample

|  |         |          |            |
|--|---------|----------|------------|
| <b>FAIRCHILD</b><br>SEMICONDUCTOR                          |         | P.O. No. |            |
| TYPE   | IN5225A | MARK     | BLK-BRN    |
| REV  | A2      | PART No. |            |
| PKG  |         | EC No.   |            |
| QTY  | 10,000  | M.O. No. | OX5046F035 |
| Q.C.   |         | DATE     | D9903      |
| MFD. UNDER US PAT 3.025.589 & OTHER US PATS & APPLICATIONS |         |          |            |

**DO-35 Reel Dimensions: Figure 3.0**



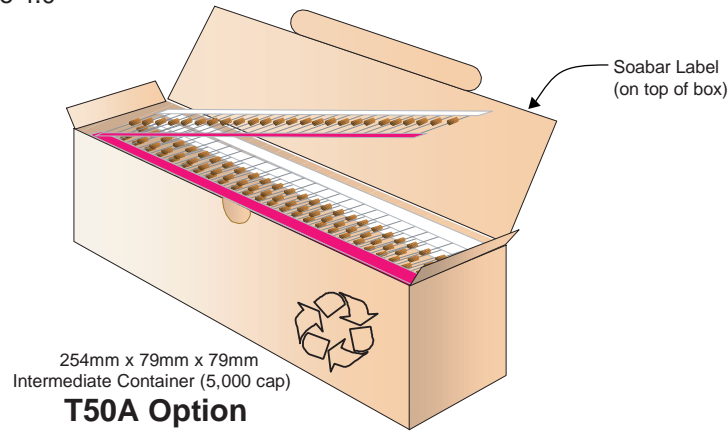
**REEL DIMENSIONS**

| ITEM DESCRIPTION               | SYMBOL | MINIMUM | MAXIMUM |
|--------------------------------|--------|---------|---------|
| Reel Diameter                  | D1     | 10.375  | 10.625  |
| Arbor Hole Diameter (Standard) | D2     | 1.245   | 1.255   |
| Core Diameter                  | D3     | 3.190   | 3.310   |
| Flange to Flange Inner Width   | W1     |         | 3.400   |

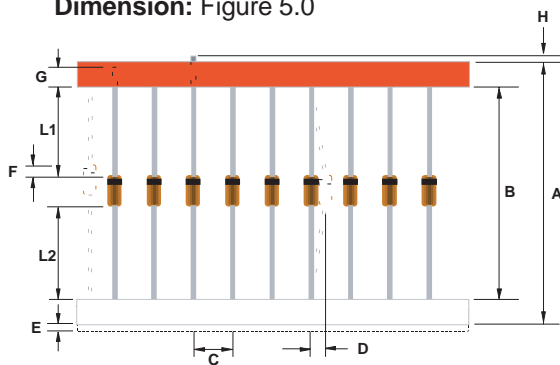
Note: All Dimensions are in inches

**DO-35 Tape and Ammo Data, continued**

**DO-35 Ammo Packing Configuration: Figure 4.0**



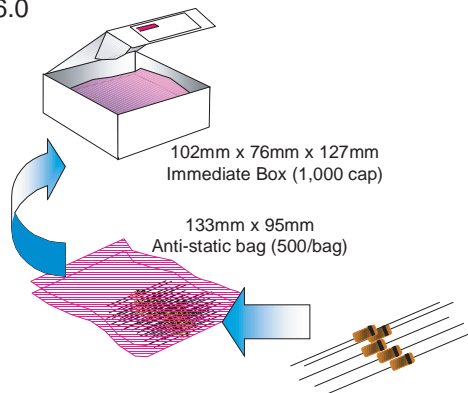
**DO-35 Taping Dimension: Figure 5.0**



**TAPING DIMENSIONS**

|       | INCH                       | MM                       | MILS                    | NOTES                        |
|-------|----------------------------|--------------------------|-------------------------|------------------------------|
| A     | 2.520<br>+0.066/<br>-0.027 | 64.00<br>+1.69/<br>-0.69 | 2519<br>+66.5/<br>-27.0 | Overall width                |
| B     | 2.047±0.027                | 52 ±0.69                 | 2047±27                 | Inside Tape Spacing          |
| C     | 0.200 ±0.0157              | 5.08 ±0.40               | 200 ±15.7               | Component Pitch              |
| D     | 0.047(max)                 | 1.2(max)                 | 47(max)                 | Component Misalignment       |
| E     | 0.022(max)                 | 0.55(max)                | 22(max)                 | Tape Mismatch                |
| F     | 0.027(max)                 | ±0.69                    | ±27                     | Units in line w/ one another |
| G     | 0.126(min)                 | 3.2(min)                 | 126(min)                | Lead amount between tapes    |
| H     | 0                          | 0                        | 0                       | Lead amount beyond tapes     |
| L1-L2 | ±0.027                     | ±0.69                    | ±27                     | Delta between two leads      |

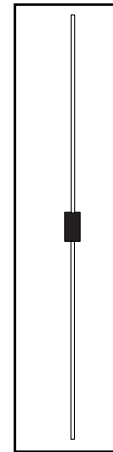
**DO-35 Bulk Packing Configuration: Figure 6.0**



**DO-35 Package Dimensions**



**DO-35 (FS PKG Code D2)**

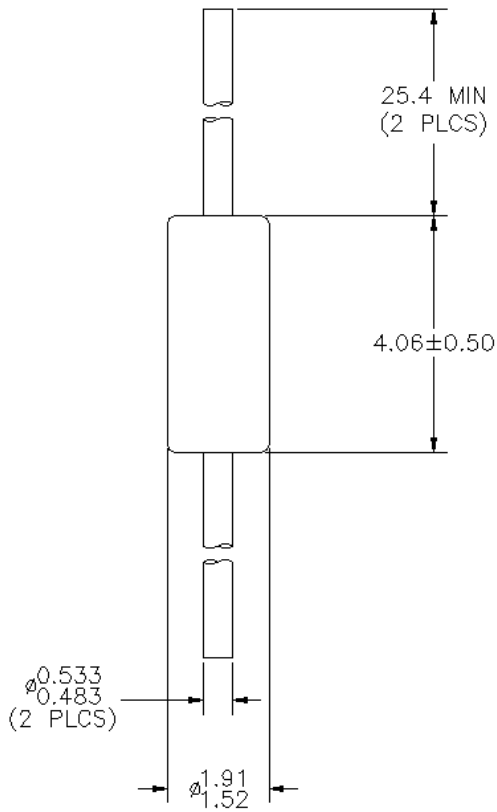


1:1

Scale 1:1 on letter size paper

Dimensions shown below are in millimeters

Part Weight per unit (gram): 0.137



NOTES: UNLESS OTHERWISE SPECIFIED

A) THIS PACKAGE CONFORMS TO JEDEC  
 DO-204, VAR. AH, ISSUE B,  
 DATED JANUARY 20, 1976.

B) HERMITICALLY SEALED GLASS PACKAGE

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| Bottomless™           | FASTr™              | PACMAN™             | Stealth™        |
| CoolFET™              | FRFET™              | POP™                | SuperSOT™-3     |
| CROSSVOLT™            | GlobalOptoisolator™ | Power247™           | SuperSOT™-6     |
| DenseTrench™          | GTO™                | PowerTrench®        | SuperSOT™-8     |
| DOMETM                | HiSeC™              | QFET™               | SyncFET™        |
| EcoSPARK™             | ISOPLANAR™          | QS™                 | TinyLogic™      |
| E <sup>2</sup> C MOS™ | LittleFET™          | QT Optoelectronics™ | TruTranslation™ |
| EnSigna™              | MicroFET™           | Quiet Series™       | UHC™            |
| FACT™                 | MICROWIRE™          | SILENT SWITCHER®    | UltraFET®       |
| FACT Quiet Series™    | OPTOLOGIC™          | SMART START™        | VCX™            |

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|---|---|
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|---|---|

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