High Conductance Low Leakage Diode

FDH3595

Sourced from Process 1M. See MMBD1501–1505 for characteristics.

AXIAL LEAD
(DO–35)
CASE 017AG

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

Symbol	Rating	Value	Unit
W_{IV}	Working Inverse Voltage	125	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 Pulse width = 1.0 s Pulse width = 1.0 μs	 1.0 4.0	A
T_{stg}	Storage Temperature Range	–65 to +175	°C
T_J	Operating Junction Temperature	175	°C

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

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

MARKING DIAGRAM

H3595 = Specific Device Code
XY = Date Code
Band Color: Silver

ORDERING INFORMATION

Device	Package	Shipping
FDH3595	AXIAL LEAD	5000 Units / Bulk

THERMAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Symbol	Characteristics	Max MMBD7000*	Unit
P_D	Total Device Dissipation Derate above 25°C	500 3.33	mW mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

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

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

Symbol	Characteristic	Test Conditions	Min	Typ	Max	Unit
B_V	Breakdown Voltage	I_R = 100 μA	150	–	–	V
I_R	Reverse Voltage Leakage Current	V_R = 125 V V_R = 30 V, T_A = 125°C V_R = 125 V, T_A = 125°C V_R = 125 V, T_A = 150°C	– – – –	– – – –	1.0 300 500 3.0	nA nA nA μA
V_F	Forward Voltage	I_F = 1.0 mA I_F = 5.0 mA I_F = 10 mA I_F = 50 mA I_F = 100 mA I_F = 200 mA	520 600 650 750 790 0.83	– – – – – –	680 760 800 890 920 1.0	mV mV mV mV mV V
C_T	Diode Capacitance	V_R = 0, f = 1.0 MHz	–	–	8.0	pF

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

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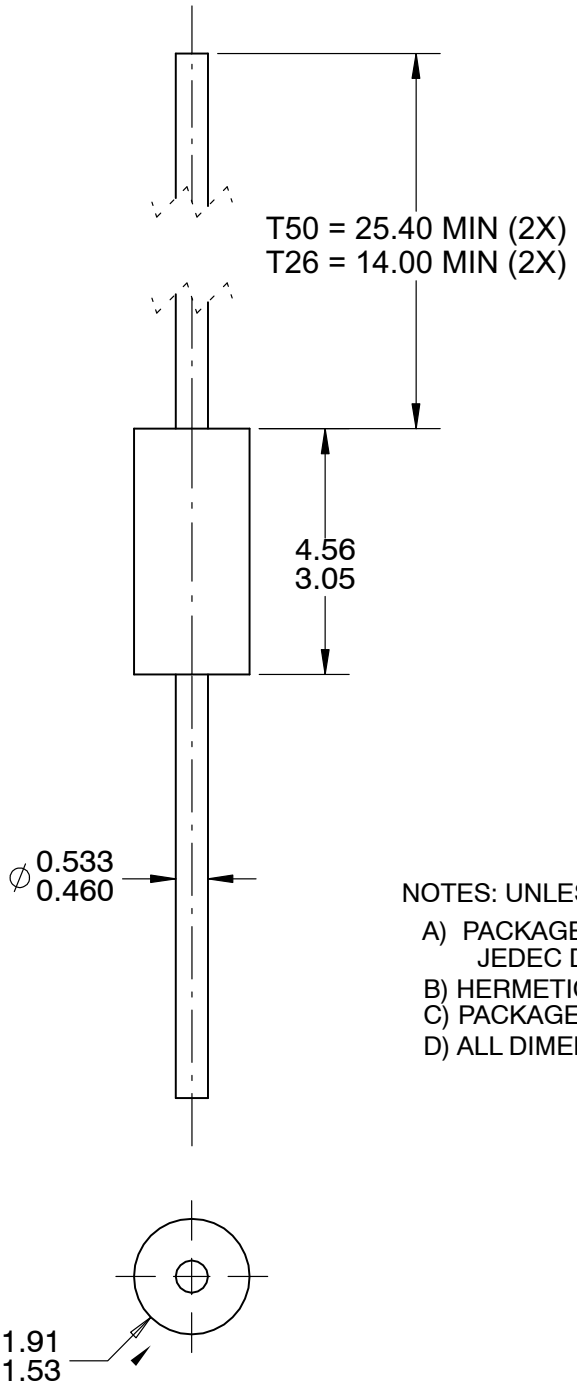

NOTES: UNLESS OTHERWISE SPECIFIED

A) PACKAGE STANDARD REFERENCE: JEDEC DO−204, VARIATION AH.
B) HERMETICALLY SEALED GLASS PACKAGE.
C) PACKAGE WEIGHT IS 0.137 GRAM.
D) ALL DIMENSIONS ARE IN MILLIMETERS.

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