Small Signal Diode

1N457, 1N457A



AXIAL LEAD
(DO−35)
CASE 017AG

(Color Band Denotes Cathode)

ABSOLUTE MAXIMUM RATINGS

(T_A = 25°C unless otherwise noted) (Notes 1, 2, 3)

Symbol	Rating	Value	Unit
V_{RRM}	Maximum Repetitive Reverse Voltage	70	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
I_{FSM}	Non−repetitive 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 +200	°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 limiting values above which the serviceability of any semiconductor device may be impaired.
2. These ratings are based on a maximum junction temperature of 200°C.
3. These are steady limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

THERMAL CHARACTERISTICS

Symbol	Parameter	Max	Unit
P_D	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

MARKING DIAGRAM



457 / 457A = Specific Device Code
XY = Date Code
Band Color: Black

ORDERING INFORMATION

Device	Package	Shipping†
1N457	DO−35 (Pb−Free)	5,000 Units / Bulk
1N457A	DO−35 (Pb−Free)	5,000 Units / Bulk
1N457TR	DO−35 (Pb−Free)	10,000 Units / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

ELECTRICAL CHARACTERISTICS

(T_A = 25°C unless otherwise noted)

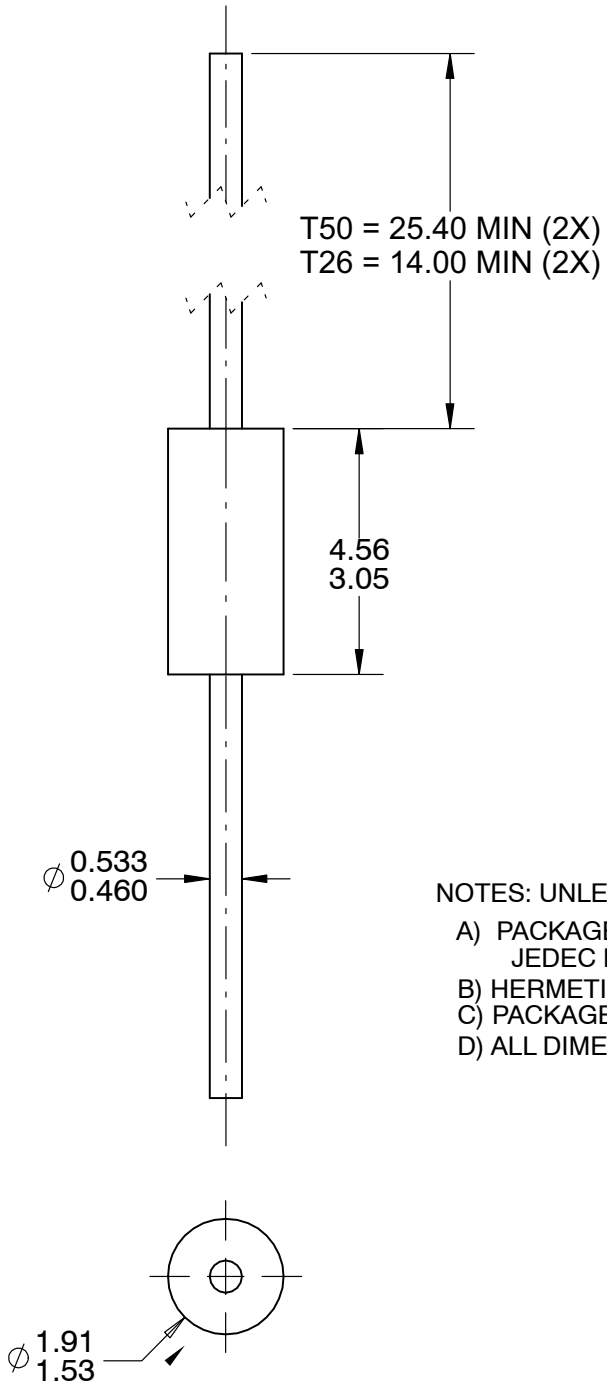
Symbol	Parameter		Test Conditions	Min	Max	Unit
V_R	Breakdown Voltage		I_R = 100 μA	70	–	V
V_F	Forward Voltage	1N457 1N457A	I_F = 20 mA I_F = 100 mA	– –	1.0 1.0	V V
I_R	Reverse Leakage		V_R = 60 V V_R = 60 V, T_A = 150°C	– –	25 5	nA μA
C_T	Total Capacitance	1N457	V_R = 0, f = 1.0 MHz	–	8.0	pF

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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