

# 1N458A Datasheet



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DiGi Electronics Part Number	1N458A-DG
Manufacturer	<a href="#">onsemi</a>
Manufacturer Product Number	1N458A
Description	DIODE GEN PURP 150V 500MA DO35
Detailed Description	Diode 150 V 500mA Through Hole DO-35

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## Purchase and inquiry

Manufacturer Product Number:

1N458A

Series:

-

Technology:

Standard

Current - Average Rectified (Io):

500mA

Speed:

Standard Recovery >500ns, > 200mA (Io)

Capacitance @ Vr, F:

-

Package / Case:

DO-204AH, DO-35, Axial

Operating Temperature - Junction:

175°C (Max)

Manufacturer:

onsemi

Product Status:

Active

Voltage - DC Reverse (Vr) (Max):

150 V

Voltage - Forward (Vf) (Max) @ If:

1 V @ 100 mA

Current - Reverse Leakage @ Vr:

25 µA @ 125 V

Mounting Type:

Through Hole

Supplier Device Package:

DO-35

Base Product Number:

1N458

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8541.10.0070

Moisture Sensitivity Level (MSL):

Not Applicable

ECCN:

EAR99

# Small Signal Diode

## 1N458A

### ABSOLUTE MAXIMUM RATINGS

( $T_A = 25^\circ\text{C}$  unless otherwise noted) (Notes 1, 2, 3)

Symbol	Rating	Value	Unit
$V_{RRM}$	Maximum Repetitive Reverse Voltage	150	V
$I_{F(AV)}$	Average Rectified Forward Current	500	mA
$I_{FSM}$	Non-repetitive Peak Forward Surge Current	Pulse Width = 1.0 s	1.0
		Pulse Width = 1.0 $\mu\text{s}$	4.0
$T_{STG}$	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	175	$^\circ\text{C}$

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.

- These ratings are limiting values above which the serviceability of the diode may be impaired.
- These ratings are based on a maximum junction temperature of  $200^\circ\text{C}$ .
- 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	$^\circ\text{C}/\text{W}$

### ELECTRICAL CHARACTERISTICS

( $T_A = 25^\circ\text{C}$  unless otherwise noted)

Symbol	Parameter	Conditions	Min	Max	Unit
$V_R$	Breakdown Voltage	$I_R = 100 \mu\text{A}$	150	-	V
$V_F$	Forward Voltage	$I_F = 100 \text{mA}$	-	1.0	V
$I_R$	Reverse Leakage	$V_R = 125 \text{V}$	-	25	nA
		$V_R = 125 \text{V}, T_A = 150^\circ\text{C}$	-	5	$\mu\text{A}$

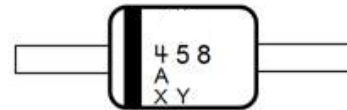
Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.



**AXIAL LEAD  
(DO-35)  
CASE 017AG**

(Color Band Denotes Cathode)

### MARKING DIAGRAM



458A = Specific Device Code  
 XY = Date Code  
 Band Color: Black

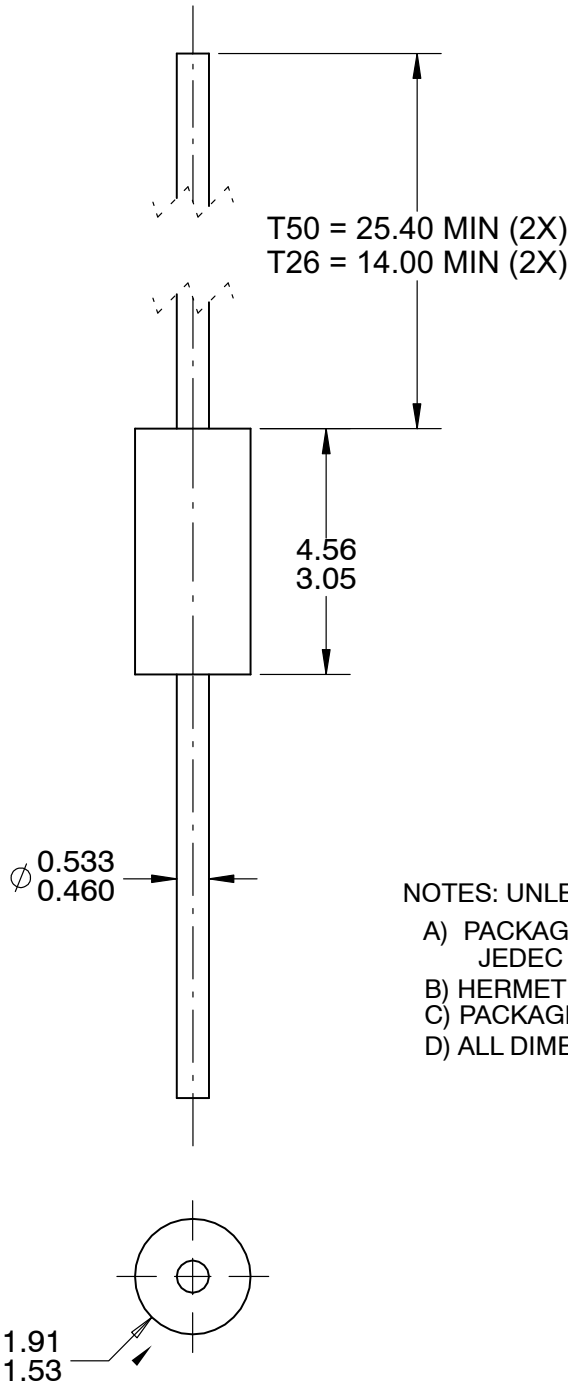
### ORDERING INFORMATION

Device	Package	Shipping <sup>†</sup>
1N458A	DO-35 (Pb-Free)	5,000 Units / Bulk
1N458ATR	DO-35 (Pb-Free)	10,000 Units / Tape & Reel

<sup>†</sup>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.

**AXIAL LEAD**  
**CASE 017AG**  
**ISSUE 0**

DATE 31 AUG 2016



- 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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