# onsemi

### **Small Signal Diode**

### 1N458A

#### ABSOLUTE MAXIMUM RATINGS

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

Symbol	Rating	Value	Unit
V <sub>RRM</sub>	Maximum Repetitive Reverse Voltage	150	V
I <sub>F(AV)</sub>	Average Rectified Forward Current	500	mA
I <sub>FSM</sub>	Non–repetitive Peak Forward Surge Current Pulse Width = 1.0 s Pulse Width = 1.0 μs	1.0 4.0	A
T <sub>STG</sub>	Storage Temperature Range	-65 to +200	°C
TJ	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 the diode may be impaired.

- 2. These ratings are based on a maximum junction temperature of 200°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
PD	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	300	°C/W

#### **ELECTRICAL CHARACTERISTICS**

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

Symbol	Parameter	Conditions	Min	Max	Unit
V <sub>R</sub>	Breakdown Voltage	I <sub>R</sub> = 100 μA	150	-	V
V <sub>F</sub>	Forward Voltage	I <sub>F</sub> = 100 mA	-	1.0	V
I <sub>R</sub>	Reverse Leakage	V <sub>R</sub> = 125 V V <sub>R</sub> = 125 V, T <sub>A</sub> = 150°C		25 5	nA μA

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.



## (Color Band Denotes Cathode)

## 458

458A = Specific Device Code XY = Date Code

Band Color: Black

#### **ORDERING INFORMATION**

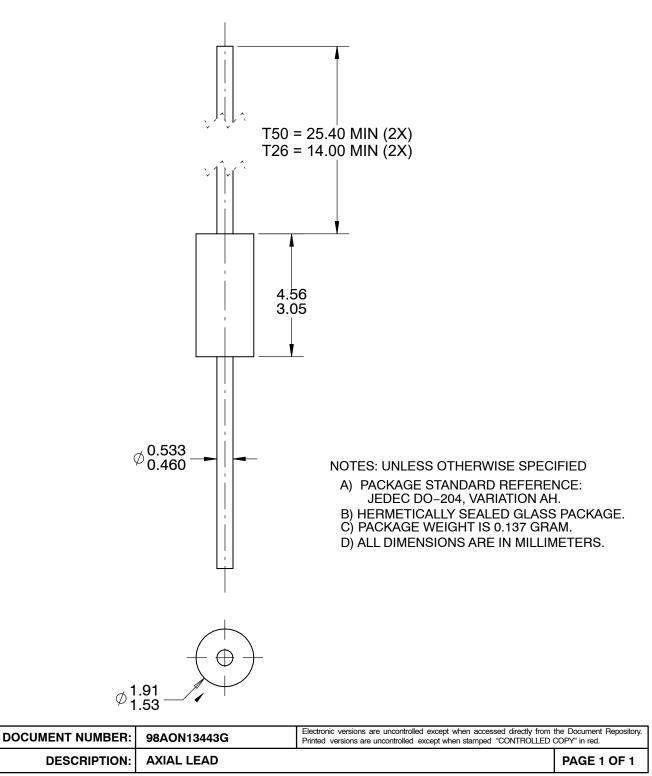
Device	Package	Shipping <sup>†</sup>
1N458A	DO-35 (Pb-Free)	5,000 Units / Bulk
1N458ATR	DO-35 (Pb-Free)	10,000 Units / Tape & Reel

+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.



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