

# TYPES 1N659, 1N660 AND 1N661 DIFFUSED SILICON HIGH POWER COMPUTER DIODES



TYPES 1N659, 1N660 AND 1N661  
BULLETIN No. DL-S 781, AUGUST, 1957

**0.3  $\mu$ sec. Maximum Recovery Time 50 to 200 VOLTS PIV**

**100 mA average rectified forward current**

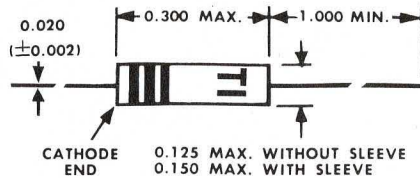
- Ruggedized to meet stringent military requirements**  
**Designed for • fast recovery • higher conductance**  
**• low capacitance**



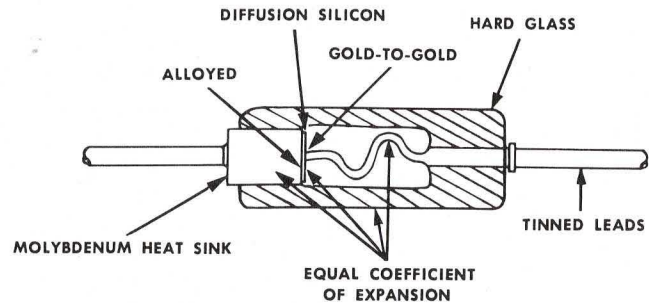
ACTUAL SIZE

### mechanical data

Hard glass hermetically sealed case with gold-to-gold contact. Unit weight is 0.195 gram.



ALL DIMENSIONS IN INCHES



### maximum ratings

	1N659	1N660	1N661	
Peak Inverse Voltage at $-65$ to $+150^{\circ}\text{C}$ .....	50	100	200	V
Average Rectified Forward Current at $+25^{\circ}\text{C}$ .....	100	100	100	mA
Average Rectified Forward Current at $+150^{\circ}\text{C}$ .....	30	30	30	mA
Recurrent Peak Forward Current at $+25^{\circ}\text{C}$ .....	320	320	320	mA
Operating Temperature, Ambient .....	$-65$ to $+150$			$^{\circ}\text{C}$
Altitude .....	100,000			ft

### specifications

Minimum Breakdown Voltage at $+100^{\circ}\text{C}$ .....	$V_Z$	60	120	240	V
Maximum Reverse Current at PIV at $+25^{\circ}\text{C}$ .....	$I_{Ib}$	5	5	10	$\mu\text{A}$
Maximum Reverse Current at PIV at $+100^{\circ}\text{C}$ .....	$I_{Ib}$	25	50	100	$\mu\text{A}$
Maximum Voltage Drop at $I_O = 6\text{mA}$ at $25^{\circ}\text{C}$ .....	$E_b$	1	1	1	V
Maximum Reverse Recovery Time* .....		0.3	0.3	0.3	$\mu\text{sec}$
Typical Capacitance at $-10\text{V}$ at $1\text{mc}$ .....	C	2.7	2.7	2.7	$\mu\text{mf}$

\* Recovery time to 400K when switched from 30 mA forward current to  $-35\text{V}$ . Measurement made with a Hauman ND-1 standard pulse recovery test set approved by JETEC-14 and described in JAN-256.

LICENSED UNDER BELL SYSTEM PATENTS

IN ORDER TO SUPPLY THE BEST PRODUCTS POSSIBLE, TEXAS INSTRUMENTS RESERVES THE RIGHT TO MAKE CHANGES AT ANY TIME.

SEMICONDUCTOR-COMPONENTS DIVISION

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