

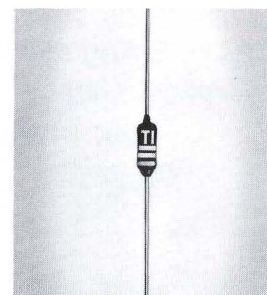
TYPES 1N461, 1N462, 1N463, 1N464 GENERAL PURPOSE SILICON DIODES



TYPES 1N461, 1N462, 1N463, 1N464
BULLETIN NO. DL-5 1084 MAY, 1959

25 TO 175 VOLTS PIV

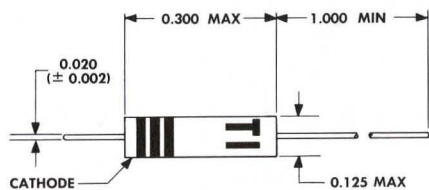
Ruggedized to meet stringent military requirements
Designed for • magnetic amplifiers • modulators
 demodulators • networks • power supplies



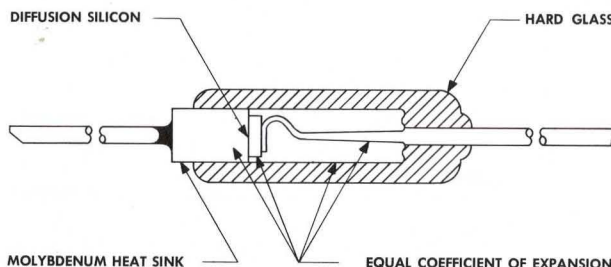
ACTUAL SIZE

mechanical data

Hard glass hermetically sealed case. Unit weight is 0.195 gram.



ALL DIMENSIONS IN INCHES



maximum ratings

	1N461	1N462	1N463	1N464		
Peak Inverse Voltage at -65 to +150°C	PIV	25	60	175	125	v
Average Rectified Forward Current at +25°C	I_O	60	50	30	40	ma
Recurrent Peak Forward Current at +25°C	i_f	180	150	100	120	ma
Power Dissipation at +25°C	P	200	200	200	200	mw
Surge Current, 1 Second at +25 to +150°C	I_{DC}	550	500	400	400	ma
Operating Temperature, Ambient	T_A	-65 to +150				°C
Altitude		100,000				ft

specifications

	1N461	1N462	1N463	1N464		
Minimum Saturation Voltage @ 100 μ a @ 25°C	V_Z	30	70	200	150	v
Max. Reverse Current at PIV at +25°C	I_{r_b}	0.5	0.5	0.5	0.5	μ a
Max. Reverse Current at PIV at +150°C	I_{r_b}	30	30	30	30	μ a
Minimum Forward Current @ +1v @ 25°C	I_b	15	5	1	3	ma

additional characteristics and ratings

Typical Capacitance @ -12 v 9 μ mf
 Frequency Range 0 to 100 kc
 Typical Recovery Time* 7 μ sec

*Measured in Jan-256 Circuit 30 ma Fwd to -35 volts. Recovery to 400K

LICENSED UNDER BELL SYSTEM PATENTS

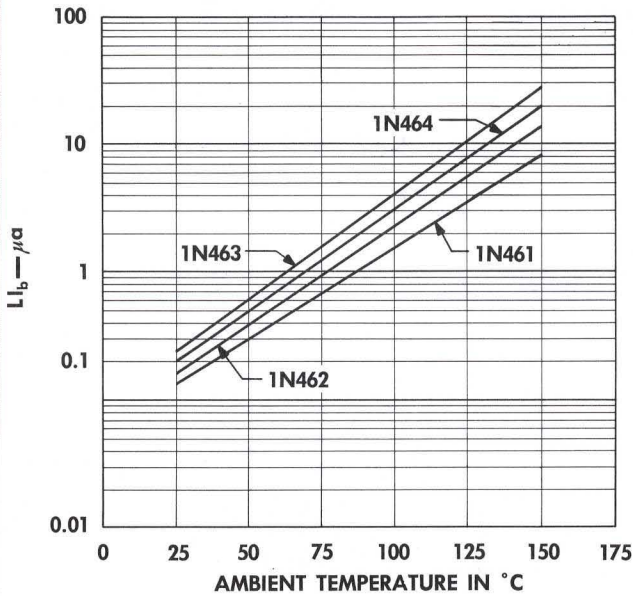
SEMICONDUCTOR-COMPONENTS DIVISION

TEXAS INSTRUMENTS
 INCORPORATED
 SEMICONDUCTOR-COMPONENTS DIVISION
 POST OFFICE BOX 312 • 13500 N. CENTRAL EXPRESSWAY
 DALLAS, TEXAS

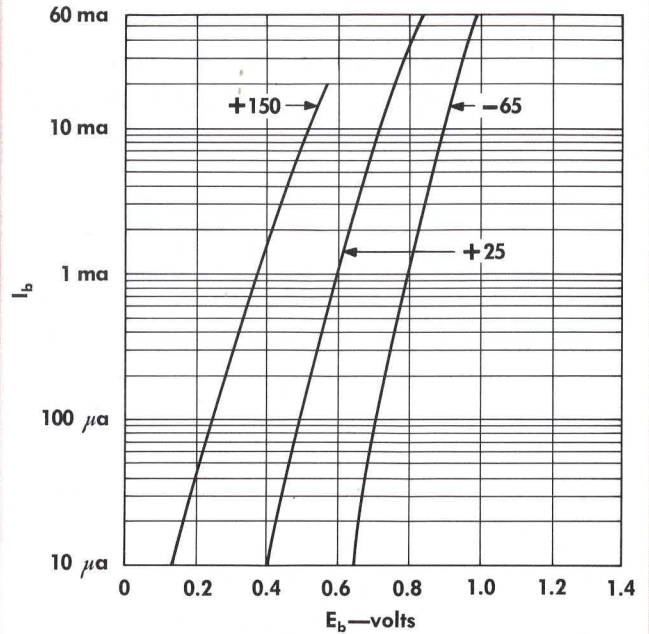
TYPES 1N461, 1N462, 1N463, 1N464

TYPICAL CHARACTERISTICS

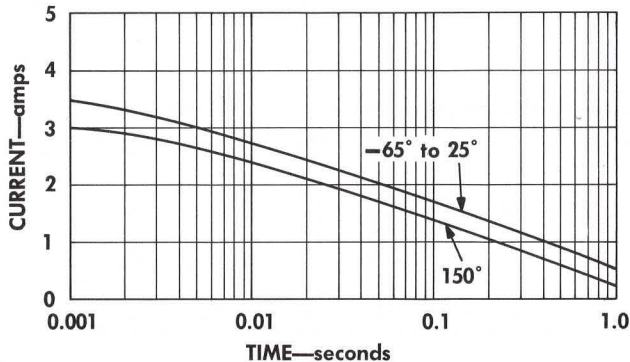
TYPICAL STATIC REVERSE CHARACTERISTICS
—1N461 SERIES AT MAXIMUM RATED
PEAK INVERSE VOLTAGE



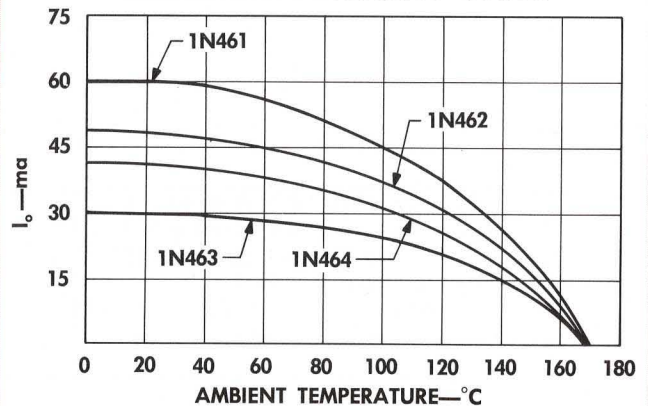
TYPICAL STATIC FORWARD CHARACTERISTICS—1N461 SERIES



NON REPETITIVE SURGE CURRENT RATINGS
FROM -65 to +150°C



TEMPERATURE DERATING CURVE



DESIGN NOTES

Types 1N461-464 and 1N482A-488A general purpose silicon diodes are designed to meet or exceed the environmental requirements of MIL-T-19500A as follows:

Test	Paragraph
Solderability	4.6.23
Temperature Cycling	4.6.24
Moisture Resistance	4.6.26
Drop	4.6.27
Shock	4.6.28

Test	Paragraph
Centrifuge	4.6.29
Vibration Fatigue	4.6.30
Vibration Noise	4.6.31
Reduced Pressure	4.6.32
Salt Spray	4.6.35

TEXAS INSTRUMENTS
INCORPORATED

SEMICONDUCTOR COMPONENTS DIVISION
POST OFFICE BOX 312 • 13500 N. CENTRAL EXPRESSWAY
DALLAS, TEXAS

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