

TYPES 1N482 through 1N488 and 1N482A through 1N488A

HIGH CONDUCTANCE SILICON DIODES



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BULLETIN No. DL-51016, JANUARY, 1959

30 TO 380 VOLTS PIV

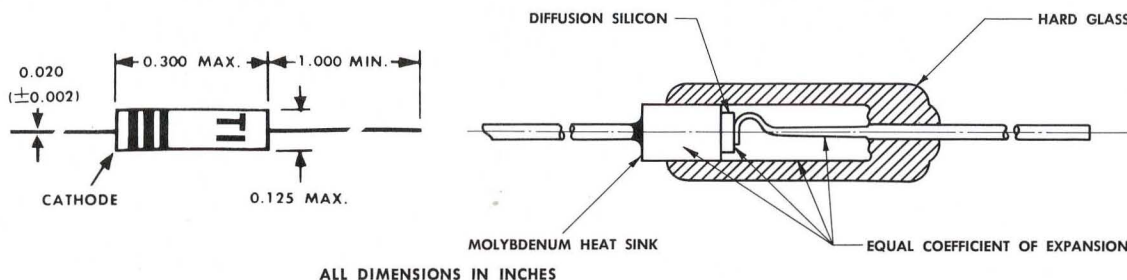
Ruggedized to meet stringent military requirements
Designed for • magnetic amplifiers • modulators •
demodulators • networks • power supplies



ACTUAL SIZE

mechanical data

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



ALL DIMENSIONS IN INCHES

maximum ratings

	1N482	1N482A	1N483	1N483A	1N484	1N484A	1N485	1N485A	1N486	1N486A	1N487	1N487A	1N488	1N488A
Peak Inverse Voltage at -65 to +150°C (Volts)	30	30	60	60	125	125	175	175	225	225	300	300	380	380
Minimum Saturation Voltage @100μa @25°C (Volts)	40	40	80	80	150	150	200	200	250	250	330	330	420	420
Average Rectified Forward Current @25°C (ma)	125	200	125	200	125	200	125	200	125	200	125	200	125	200
Average Rectified Forward Current @150°C (ma)	50	70	50	70	50	70	50	70	50	70	50	70	50	70
Recurrent Peak Forward Current @25°C (ma)	400	650	400	650	400	650	400	650	400	650	400	650	400	650
Power Dissipation @25°C (mw)	500	500	500	500	500	500	500	500	500	500	500	500	500	500
Power Dissipation @150°C (mw)	250	250	250	250	250	250	250	250	250	250	250	250	250	250
Surge Current—25 to 150°C (1 Second on—15 Seconds off) Amp	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5	1	1.5

specifications

Maximum Reverse Current @PIV @25°C (μa)	.25	.025	.25	.025	.25	.025	.25	.025	.25	.05	.25	.1	.25	.1
Maximum Reverse Current @150°C (μa)	30	15	30	15	30	15	30	15	50	25	50	25	50	25
Maximum Voltage Drop @I _b =100 ma @25°C (V)	1.1		1.1		1.1		1.1		1.1		1.1		1.1	
Maximum Voltage Drop @I _b =200 ma @25°C (V)		1.0		1.0		1.0		1.0		1.0		1.0		1.0

additional characteristics and ratings

Typical Capacitance @ -12V														9μμf
Frequency Range														0 to 100 KC
Maximum Operating and Storage Temp.														-65 to +150°C
Maximum Altitude														100,000 Feet
Typical Recovery Time*														7 μsec.

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

LICENSED UNDER BELL SYSTEM PATENTS

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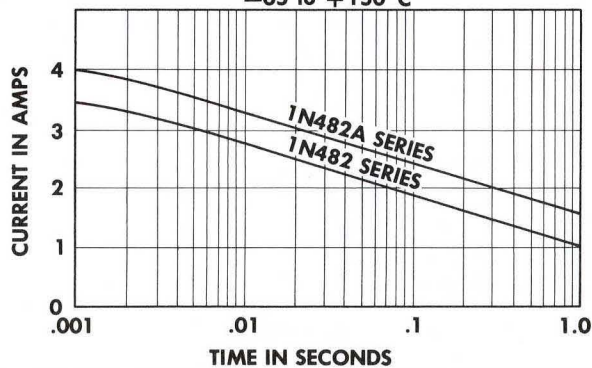
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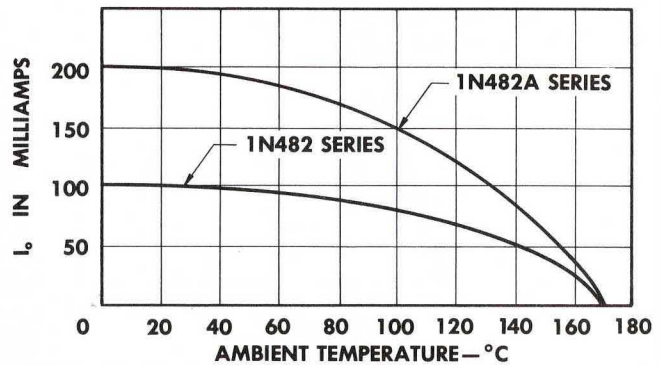
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TYPICAL CHARACTERISTICS

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



TEMPERATURE DERATING CURVE



DESIGN NOTES

Types 1N482-488 and 1N482A-488A high conductance silicon diodes are designed to meet or exceed the environmental requirements of MIL-T-19500A as follows:

Test	Paragraph	Test	Paragraph
Solderability	4.6.23	Centrifuge	4.6.29
Temperature Cycling	4.6.24	Vibration Fatigue	4.6.30
Moisture Resistance	4.6.26	Vibration Noise	4.6.31
Drop	4.6.27	Reduced Pressure	4.6.32
Shock	4.6.28	Salt Spray	4.6.35

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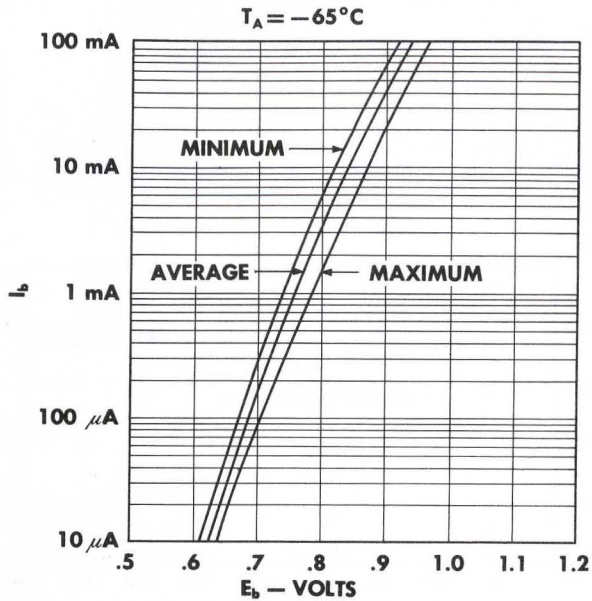
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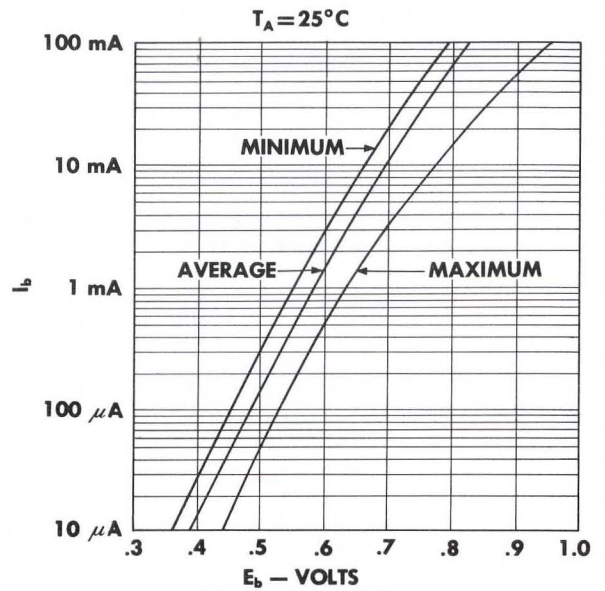
TYPES 1N482A through 1N488A

TYPICAL CHARACTERISTICS

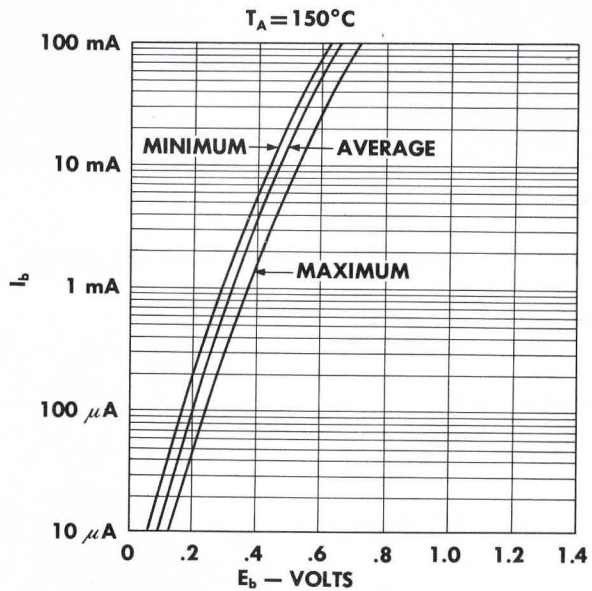
TYP. STATIC FORWARD CHARACTERISTICS—1N482A SERIES



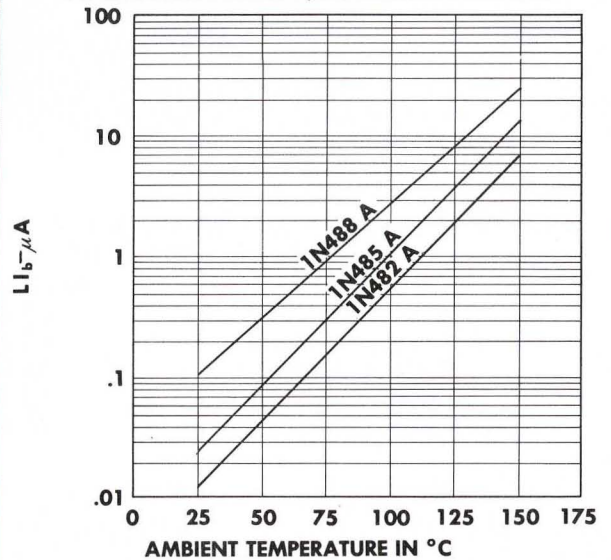
TYP. STATIC FORWARD CHARACTERISTICS—1N482A SERIES



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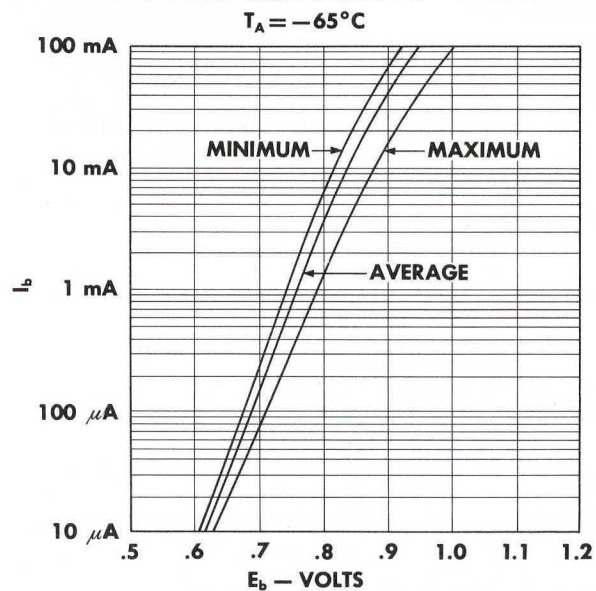
TYP. STATIC REVERSE CHARACTERISTICS — 1N482A SERIES
AT MAXIMUM RATED PEAK INVERSE VOLTAGE.



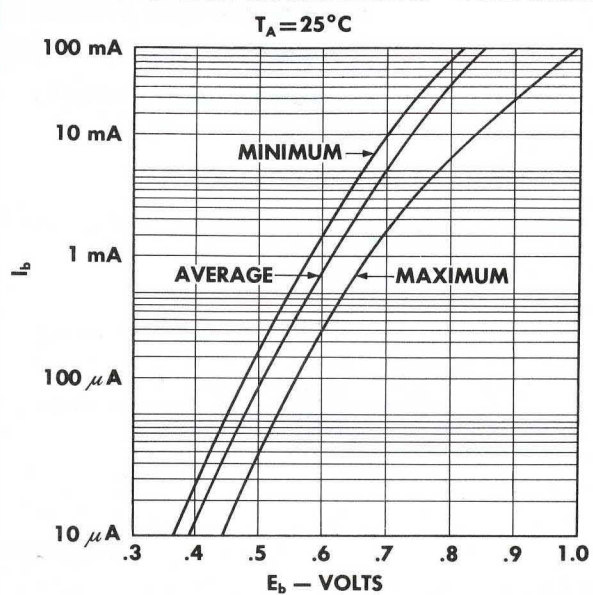
TYPES 1N482 through 1N488

TYPICAL CHARACTERISTICS

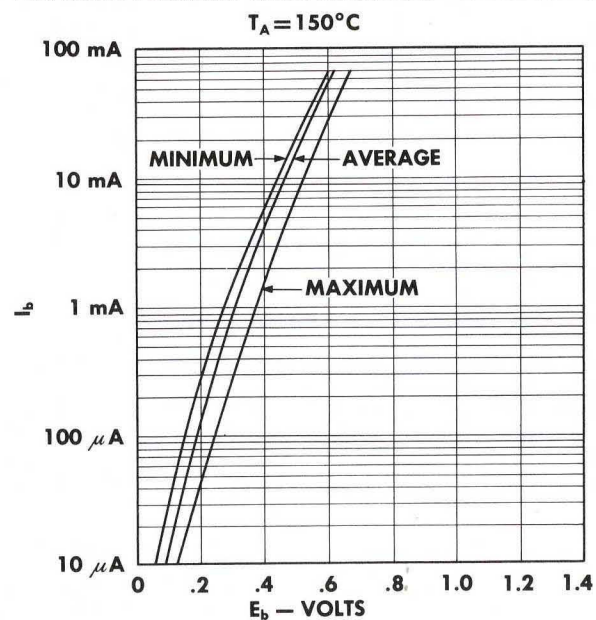
TYP. STATIC FORWARD CHARACTERISTICS — 1N482 SERIES



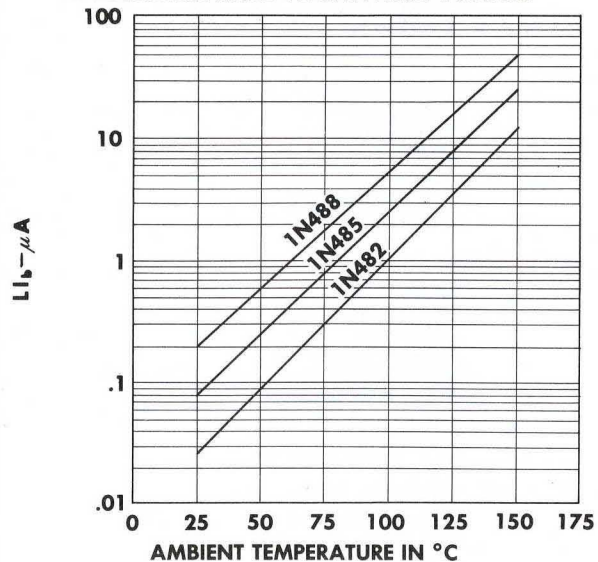
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