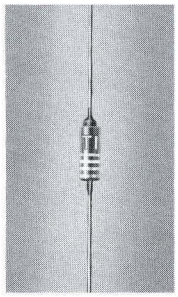
TYPES 1N456 THROUGH 1N459 AND TYPES 1N456A THROUGH 1N459A
LOW LEAKAGE SILICON DIODES



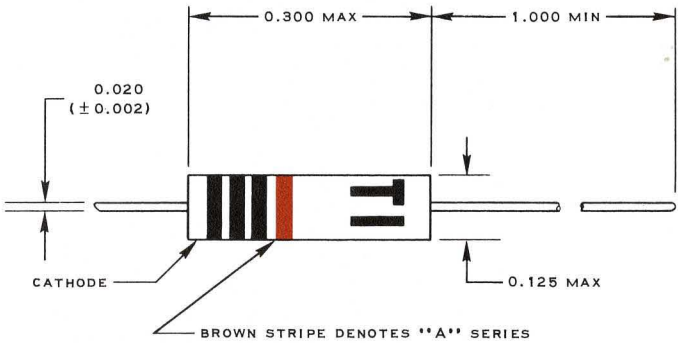
25 TO 175 VOLTS PIV

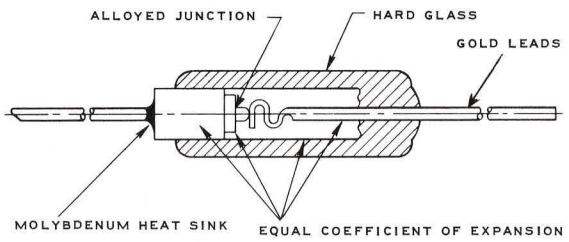
Ruggedized to meet stringent military requirements
Designed for • modulators • demodulators • networks • power supplies •

Texas Instruments 1N456 Series Diodes feature high temperature operation, characterized by good forward conductance and extremely high back resistance. This diode exhibits very low reverse current throughout the wide operating temperature range.

mechanical data

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





maximum ratings

PARAMETER		1N456	1N456A	1N457 √	1N457A	1N458 √	1N458A	1N459 √	1N459A	UNIT
PIV	Peak Inverse Voltage at −65 to +150°C	25	25	60	60	125	125	175	175	v
I_O	Average Rectified Forward Current at +25°C	90	200	75	200	55	200	40	200	ma
P	Maximum Power Dissipation at +25°C	500	500	500	500	500	500	500	500	mw
	+125°C	250	250	250	250	250	250	250	250	mw
I_{DC}	Surge Current, 1 Second at +25°C	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	a
T_A	Operating Temperature, Ambient	−65 to +200								°C
	Altitude	100,000								ft

specifications

V	Minimum Saturation Voltage at 100 μa	30	30	70	70	150	150	200	200	v
I_{I_b}	Maximum Reverse Current at PIV at +25°C	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	μa
I_{I_b}	Maximum Reverse Current at PIV at +150°C	5	5	5	5	5	5	5	5	μa
I_b	Minimum Forward Current at 1 v at 25°C	40	100	20	100	7	100	3	100	ma

additional characteristics and ratings

Typical Capacitance at 0 v 5μμf
Typical Recovery Time* . . . . . 5 μs

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

√ MILITARY TYPES TO MEET MIL-E-1/1026, 1027, and 1028.

LICENSED UNDER BELL SYSTEM PATENTS

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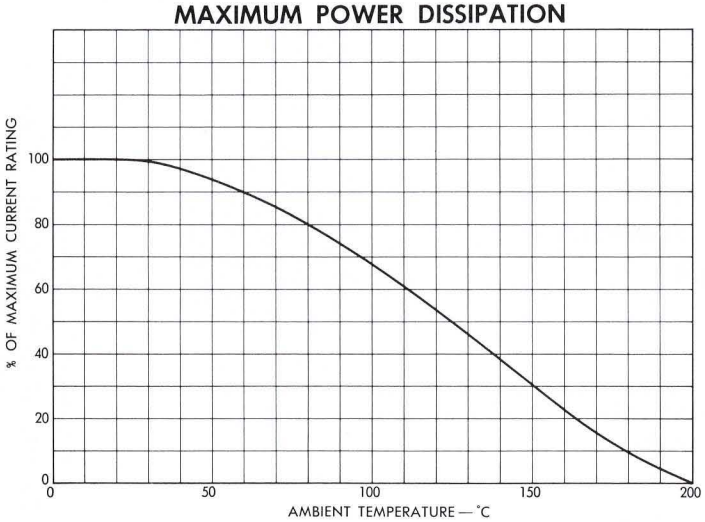
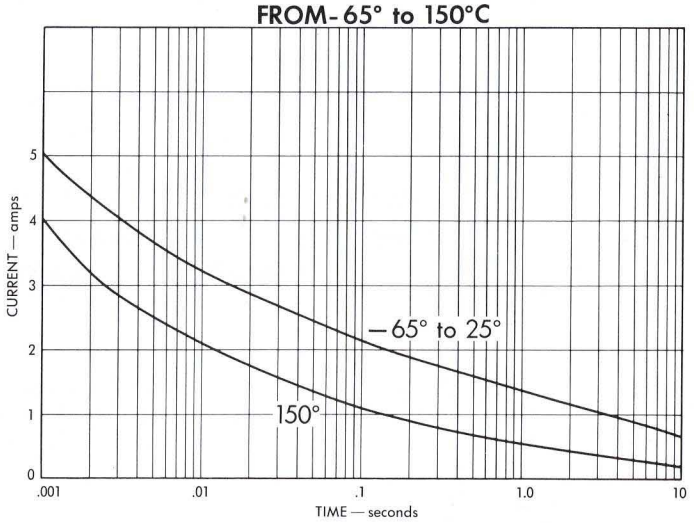
TYPES 1N456 THROUGH 1N459 AND TYPES 1N456A THROUGH 1N459A

TYPICAL CHARACTERISTICS

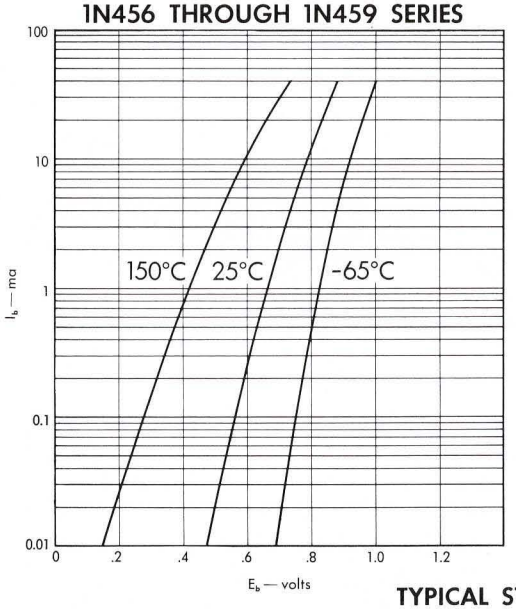
TEMPERATURE DERATING CURVE MAXIMUM POWER DISSIPATION



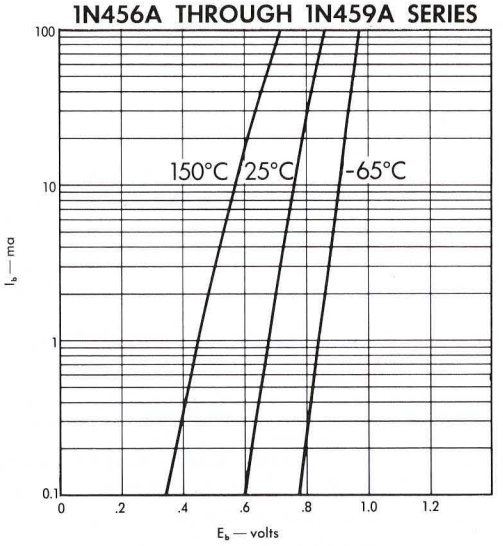
NON-REPETITIVE SURGE CURRENT RATINGS FROM -65° to 150°C



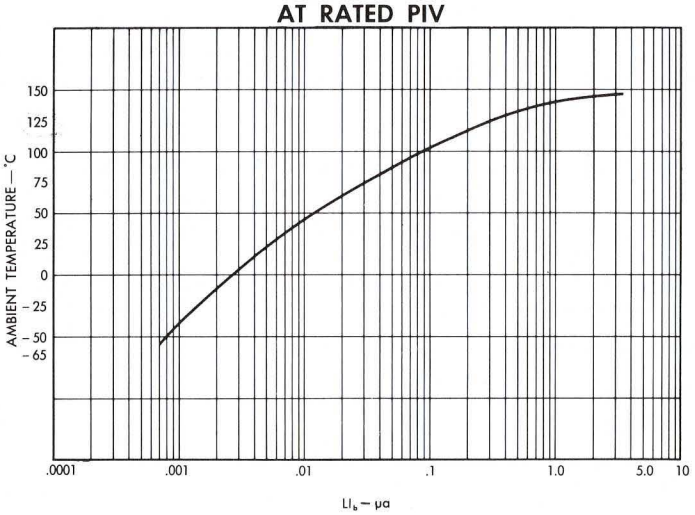
TYPICAL STATIC FORWARD CHARACTERISTICS 1N456 THROUGH 1N459 SERIES



TYPICAL STATIC FORWARD CHARACTERISTICS 1N456A THROUGH 1N459A SERIES



TYPICAL STATIC REVERSE CHARACTERISTICS AT RATED PIV



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