DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

1N3154(A)-1N3157(A)

TEMPERATURE COMPENSATED ZENER DIODE

FEATURES

- Available as “HR” (high reliability) screened per MIL-PRF-19500, JANTX level. Add “HR” suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding “-PBF” suffix.

MAXIMUM RATINGS

Operating Temperature	-65 to +175°C
Storage Temperature	-65 to +175°C
DC Power Dissipation	500 mW @ 50°C
Power Derating	4 mW/°C above 50°C
Reverse Leakage Current	I_R = 10µA @ 25°C & V_R = 5.5 Vdc

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

Type Number	Zener Voltage V_Z @ I_{ZT}	Zener Test Current I_{ZT}	Maximum Zener Impedance Z_{ZT} Note 1	Voltage Temperature Stability V_{ZT} maximum Note 2	Temperature Range	Effective Temperature Coefficient
	Volts	**mA**	**Ohms**	**mV**	**°C**	**%/°C**
1N3154	8.00-8.80	10	15	130	-55 to +100	.01
1N3154A	8.00-8.80	10	15	172	-55 to +150	.01
1N3155	8.00-8.80	10	15	65	-55 to +100	.005
1N3155A	8.00-8.80	10	15	86	-55 to +150	.005
1N3156	8.00-8.80	10	15	26	-55 to +100	.002
1N3156A	8.00-8.80	10	15	34	-55 to +150	.002
1N3157	8.00-8.80	10	15	13	-55 to +100	.001
1N3157A	8.00-8.80	10	15	17	-55 to +150	.001

Note 1: Zener impedance is derived by superimposing on I_{ZT} A 60 Hz rms ac current equal to 10% of I_{ZT}.
Note 2: The maximum allowable change observed over the entire temperature range. (The diode voltage will not exceed the specified mV at any discrete temperature between the established limits.

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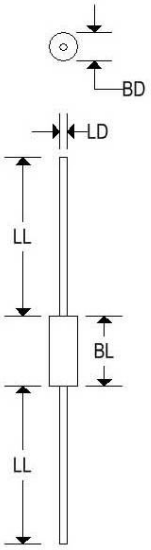
MECHANICAL CHARACTERISTICS

Case:	DO-35 hermetically sealed glass
Polarity:	Cathode band
Marking:	Body Painted, Alpha-Numeric



	DO-35			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.055	0.090	1.400	2.290
BL	0.120	0.200	3.050	5.080
LD	0.018	0.022	0.460	0.560
LL	1.000	1.500	25.400	38.100

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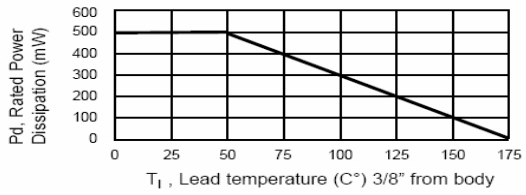
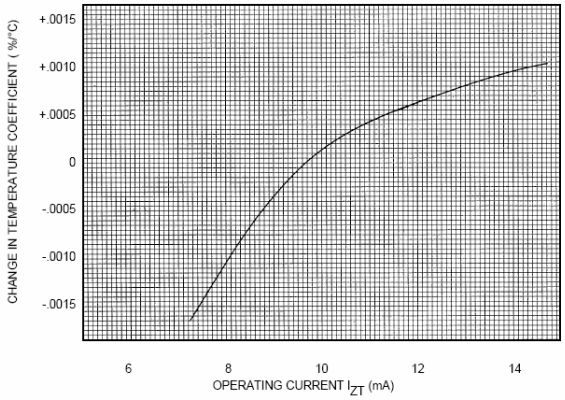
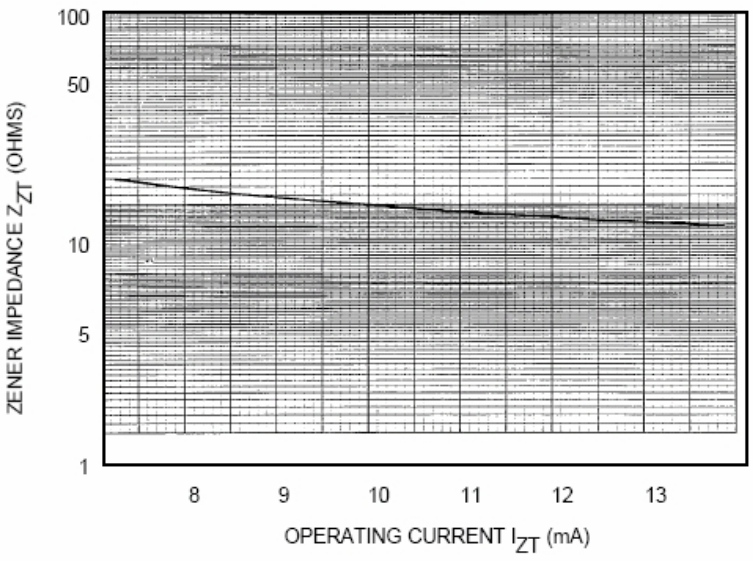


POWER DERATING CURVE



TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT



ZENER IMPEDANCE VS. OPERATING CURRENT