



1N4156 and OTHER FORWARD REGULATOR DIODES

ELECTRICAL CHARACTERISTICS @ 25 °C, unless otherwise stated

IS1 Part Number	Forward Voltage V_f (Volts)	Minimum Breakdown Voltage at 5.0 uA V_{BR} (Volts)	Maximum Reverse Current			Maximum Capacitance* at 0 Volts & $f=1$ MHz C (pF)	Stored Charge	
			at 25 °C I_{R1} (nA)	at 150 °C I_{R2} (uA)	at V_{BR} (Volts)		Min Q (pC)	Max Q (pC)
1N912	Table 10	10	1.0		5.0			
1N912A	Table 11	10	1.0		5.0			
1N913	Table 10	10	1.0		5.0			
1N913A	Table 11	10	1.0	50	5.0			
1N4156	Table 1	30	50	50	20	25	50	500
1N4157	Table 2	30	50	50	20	20	50	500
1N4453	Table 3	30	50	50	20	30	50	500
1N5179	Table 4	30	50	25 at 100 °C	20	20	50	500
1N4819	Table 5	30 at 100 uA	100	25 at 100 °C	20	25	-	-
1N4829	Table 5	30 at 100 uA	100	25 at 100 °C	20	20	-	-
1N4830	Table 6	30 at 100 uA	100		20	25	-	-
C6042	Table 7	30	30		20	15 (typ.)	75	400
C6043	Table 9	30	30		20	10 (typ.)	75	400
C6044	Table 9	30	30		20	7 (typ.)	60	300
C6342	Table 7	30	30		30	15 (typ.)	75	400
C6343	Table 8	60	30		30	10 (typ.)	75	400
C6344	Table 9	90	30		30	7 (typ.)	60	300
MPD200	Table 7	30	30	50	20	20	75	400
MPD300	Table 8	60	30	50	20	15	75	400
MPD400	Table 9	90	30	50	20	10	60	300

Forward Voltage, V_f , Volts

I_f mA	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
	Min-Max	Min-Max	Min-Max	Min-Max	Min-Max	Min-Max
0.010	0.74-1.09	1.19-1.54	430-550	1.40-2.10		
0.100	0.97-1.22	1.52-1.77	510-630	1.80-2.50	0.84-1.25	1.35-1.60
1.00	1.21-1.41	1.85-2.05	600-710	2.20-2.80	0.99-1.44	1.63-2.08
10	1.38-1.59	2.12-2.32	690-600	2.60-3.20	1.16-1.51	1.90-2.35
100**	1.54-1.84	2.36-2.66	800-920	3.00-3.70	1.35-1.37	2.15-2.89

I_f mA	Table 7	Table 8	Table 9	Table 10	Table 11
	Min-Max	Min-Max	Min-Max	Min-Max	Min-Max
0.010	0.90-1.00	1.40-1.54	1.82-2.01		
0.100	1.05-1.16	1.62-1.76	2.14-2.39		
1.00	1.22-1.34	1.84-2.03	2.47-2.71	558-636	589-651
10	1.39-1.54	2.10-2.33	2.80-3.07		
100**	1.60-1.76	2.40-2.65	3.16-3.49	1.0	1.0

* Capacitance as measured on Boonton 75A Capacitance Bridge at a signal level of 50 mA and a frequency of 1 MHz.
 ** Pulsed Measurement. Pulse width = 300 nsec. Duty Cycle = 2%.

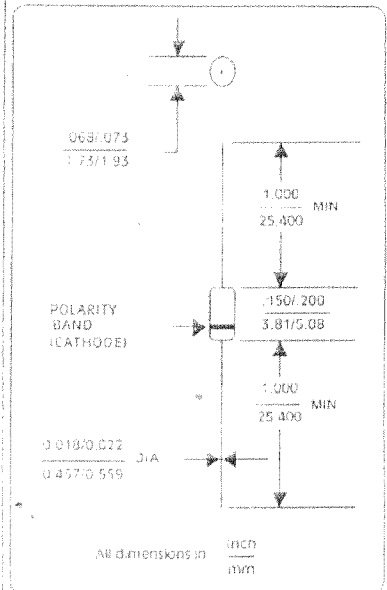


FIGURE 1

DESIGN DATA

CASE: Hermetically sealed glass case. DO-35 Outline.

LEAD MATERIAL: Copper clad steel.

LEAD FINISH: Tin/Lead

POLARITY: Diode to be operated with the banded (cathode) end positive with respect to the opposite end.

WEIGHT: 0.2 Grams

MOUNTING POSITION: Any

These high speed multi-pellet diodes are used in computer circuits and general purpose applications. They consist of one, two, three, or four silicon diode chips in series, mounted in a DO-35 hermetically sealed glass package. This structure makes possible devices having controlled conductance and low leakage. This controlled conductance is necessary for the design of clippers, dc coupling circuits, clamping circuits, meter protectors, bias regulators, and other types of circuits that require tight tolerance on low voltage levels.

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