



High-reliability discrete products  
and engineering services since 1977

1N4156, 1N4157, 1N4453, 1N4829,  
1N4830, 1N5179, MPD100-MPD400A

TIGHT TOLERANCE STABISTORS

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

|                                  |                      |
|----------------------------------|----------------------|
| Power Rating:                    | 500 mW               |
| Power Derating:                  | 4.0 mW/°C above 50°C |
| Junction & Storage Temperatures: | -65°C to 175°C       |

ELECTRICAL CHARACTERISTICS (T<sub>A</sub> = 25°C unless otherwise specified)

| Type    | Maximum Reverse Current<br>I <sub>R</sub> |             |                           | Minimum Reverse<br>Breakdown Voltage<br>V <sub>BR</sub> (VOLTS) @ 5 μA | Stored Charge @ 1.00mA<br>Q <sub>S</sub> (pC) |     | Maximum<br>Capacitance<br>C(pF) @ 0 VOLTS | Number of p-n<br>Junctions |
|---------|---|-------------|---------------------------|--|---|-----|---|----------------------------|
|         | 25°C<br>nA                                | 150°C<br>μA | @ V <sub>R</sub><br>VOLTS |  | Min   | Max |   |                            |
| 1N4156  | 50  | 50          | 20                        | 30   | 50  | 500 | 25  | 2                          |
| 1N4157  | 50  | 50          | 20                        | 30   | 50  | 500 | 20  | 3                          |
| 1N4453  | 50  | 50          | 20                        | 30   | 50  | 500 | 30  | 1                          |
| 1N4829  | 100                                       | 25 @ 100°C  | 20                        | 30 @ 100μA   | --  | --  | 25  | 2                          |
| 1N4830  | 100                                       | 25 @ 100°C  | 20                        | 30 @ 100μA   | --  | --  | 20  | 3                          |
| 1N5179  | 50  | --          | 20                        | 30   | 50  | 500 | 20  | 4                          |
| MPD100  | 30  | 50          | 30                        | 30   | 75  | 300 | 30  | 1                          |
| MPD100A | 30  | 50          | 30                        | 30   | 800*  | --  | 40  | 1                          |
| MPD200  | 30  | 50          | 30                        | 30   | 75  | 400 | 30  | 2                          |
| MPD200A | 30  | 50          | 30                        | 30   | 800*  | --  | 40  | 2                          |
| MPD300  | 30  | 50          | 30                        | 60   | 75  | 400 | 30  | 3                          |
| MPD300A | 30  | 50          | 30                        | 60   | 800*  | --  | 40  | 3                          |
| MPD400  | 30  | 50          | 30                        | 90   | 60  | 300 | 30  | 4                          |
| MPD400A | 30  | 50          | 30                        | 90   | 800*  | --  | 40  | 4                          |

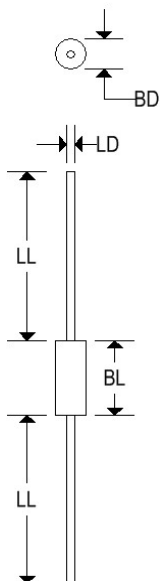
\*Q<sub>S</sub> @ 10Ma

TIGHT TOLERANCE STABISTORS

| Type    | Forward Voltage $V_F$ (VOLTS) at $I_F$ @ 25°C |       |                 |       |                 |       |                 |       |                  |       |
|---------|---|-------|-----------------|-------|-----------------|-------|-----------------|-------|------------------|-------|
|         | $I_F$<br>.010mA                               |       | $I_F$<br>0.10mA |       | $I_F$<br>1.00mA |       | $I_F$<br>10.0mA |       | $I_F$<br>100.0mA |       |
|         | Min   | Max   | Min             | Max   | Min             | Max   | Min             | Max   | Min              | Max   |
| 1N4156  | 0.740   | 1.090 | 0.970           | 1.220 | 1.210           | 1.410 | 1.380           | 1.580 | 1.540            | 1.840 |
| 1N4157  | 1.190   | 1.540 | 1.520           | 1.770 | 1.850           | 2.050 | 2.120           | 2.320 | 2.360            | 2.660 |
| 1N4453  | --  | --    | 0.510           | 0.630 | 0.600           | 0.710 | 0.690           | 0.800 | 0.800            | 0.920 |
| 1N4829  | --  | --    | 0.840           | 1.250 | 0.990           | 1.440 | 1.160           | 1.610 | 1.350            | 1.870 |
| 1N4830  | --  | --    | 1.350           | 1.800 | 1.630           | 2.080 | 1.900           | 2.350 | 2.150            | 2.690 |
| 1N5179  | --  | --    | 1.800           | 2.500 | 2.200           | 2.800 | 2.600           | 3.200 | 3.000            | 3.700 |
| MPD100  | 0.450   | 0.500 | 0.535           | 0.590 | 0.618           | 0.677 | 0.700           | 0.765 | 0.790            | 0.880 |
| MPD100A | 0.450   | 0.500 | 0.535           | 0.590 | 0.618           | 0.677 | 0.700           | 0.765 | 0.790            | 0.880 |
| MPD200  | 0.900   | 1.000 | 1.050           | 1.160 | 1.220           | 1.340 | 1.390           | 1.540 | 1.600            | 1.760 |
| MPD200A | 0.900   | 1.000 | 1.050           | 1.160 | 1.220           | 1.340 | 1.390           | 1.540 | 1.600            | 1.760 |
| MPD300  | 1.400   | 1.540 | 1.620           | 1.780 | 1.840           | 2.030 | 2.100           | 2.330 | 2.400            | 2.650 |
| MPD300A | 1.400   | 1.540 | 1.620           | 1.780 | 1.840           | 2.030 | 2.100           | 2.330 | 2.400            | 2.650 |
| MPD400  | 1.820   | 2.010 | 2.140           | 2.360 | 2.470           | 2.710 | 2.800           | 3.070 | 3.160            | 3.520 |
| MPD400A | 1.820   | 2.010 | 2.140           | 2.360 | 2.470           | 2.710 | 2.800           | 3.070 | 3.160            | 3.520 |

MECHANICAL CHARACTERISTICS

|           |               |
|-----------|---------------|
| Case:     | DO-35         |
| Marking   | Alpha-numeric |
| Polarity: | Cathode band  |



|    | 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 |