

**CURRENT REGULATOR DIODES**

- HIGH SOURCE IMPEDANCE
- METALLURGICALLY BONDED
- DOUBLE PLUG CONSTRUCTION

Qualified per MIL-PRF-19500/463

**DEVICES**

**\* 1N5283 Thru 1N5314**  
**1N5283-1 Thru 1N5314-1**

\* These devices are only available as Commercial Level Product.

**QUALIFIED LEVELS**

**JAN**  
**JANTX**  
**JANTXV**  
**JANS**

**MAXIMUM RATING AT 25°C**

|                         |                               |
|-------------------------|-------------------------------|
| Operating Temperature:  | -65°C to +175°C               |
| Storage Temperature:    | -65°C to +175°C               |
| DC Power Dissipation:   | 500mW @ +50°C @ $T_L = 3/8''$ |
| Power Derating:         | 4mW / °C above +50°C          |
| Peak Operating Voltage: | 100 Volts                     |

**ELECTRICAL CHARACTERISTICS (TA = 25°C, unless otherwise specified)**

| TYPE NUMBER | REGULATOR CURRENT<br>Ip (mA) @ Vs = 25V |       |       | MINIMUM DYNAMIC IMPEDANCE<br>@ Vs = 25<br>Zs (M)<br>(Note 1) | MINIMUM KNEE IMPEDANCE<br>@ V <sub>K</sub> = 6.0V<br>Z <sub>K</sub> (M)<br>(Note 2) | MAXIMUM LIMITING VOLTAGE<br>@ I <sub>L</sub> = 0.8 Ip (min)<br>V <sub>L</sub> (VOLTS) |
|-------------|---|-------|-------|--|---|---|
|             | NOM                                     | MIN   | MAX   |  |   |   |
| 1N5283      | 0.22                                    | 0.198 | 0.242 | 25.0   | 2.75  | 1.00  |
| 1N5284      | 0.24                                    | 0.216 | 0.264 | 19.0   | 2.35  | 1.00  |
| 1N5285      | 0.27                                    | 0.243 | 0.297 | 14.0   | 1.95  | 1.00  |
| 1N5286      | 0.30                                    | 0.270 | 0.330 | 9.0  | 1.60  | 1.00  |
| 1N5287      | 0.33                                    | 0.297 | 0.363 | 6.6  | 1.35  | 1.00  |
| 1N5288      | 0.39                                    | 0.351 | 0.429 | 4.10   | 1.00  | 1.05  |
| 1N5289      | 0.43                                    | 0.387 | 0.473 | 3.30   | 0.870   | 1.05  |
| 1N5290      | 0.47                                    | 0.423 | 0.517 | 2.70   | 0.750   | 1.05  |
| 1N5291      | 0.56                                    | 0.504 | 0.616 | 1.90   | 0.560   | 1.10  |
| 1N5292      | 0.62                                    | 0.558 | 0.682 | 1.55   | 0.470   | 1.13  |
| 1N5293      | 0.68                                    | 0.612 | 0.748 | 1.35   | 0.400   | 1.15  |
| 1N5294      | 0.75                                    | 0.675 | 0.825 | 1.15   | 0.335   | 1.20  |
| 1N5295      | 0.82                                    | 0.738 | 0.902 | 1.00   | 0.290   | 1.25  |
| 1N5296      | 0.91                                    | 0.819 | 1.001 | 0.880  | 0.240   | 1.29  |
| 1N5297      | 1.00                                    | 0.900 | 1.100 | 0.800  | 0.205   | 1.35  |
| 1N5298      | 1.10                                    | 0.990 | 1.210 | 0.700  | 0.180   | 1.40  |
| 1N5299      | 1.20                                    | 1.08  | 1.32  | 0.640  | 0.155   | 1.45  |
| 1N5300      | 1.30                                    | 1.17  | 1.43  | 0.580  | 0.135   | 1.50  |
| 1N5301      | 1.40                                    | 1.26  | 1.54  | 0.540  | 0.115   | 1.55  |
| 1N5302      | 1.50                                    | 1.35  | 1.65  | 0.510  | 0.105   | 1.60  |
| 1N5303      | 1.60                                    | 1.44  | 1.76  | 0.475  | 0.092   | 1.65  |
| 1N5304      | 1.80                                    | 1.62  | 1.98  | 0.420  | 0.074   | 1.75  |
| 1N5305      | 2.00                                    | 1.80  | 2.20  | 0.395  | 0.061   | 1.85  |
| 1N5306      | 2.20                                    | 1.98  | 2.42  | 0.370  | 0.052   | 1.95  |
| 1N5307      | 2.40                                    | 2.16  | 2.64  | 0.345  | 0.044   | 2.00  |
| 1N5308      | 2.70                                    | 2.43  | 2.97  | 0.320  | 0.035   | 2.15  |
| 1N5309      | 3.00                                    | 2.70  | 3.30  | 0.300  | 0.029   | 2.25  |
| 1N5310      | 3.30                                    | 2.97  | 3.63  | 0.280  | 0.024   | 2.35  |
| 1N5311      | 3.60                                    | 3.24  | 3.96  | 0.265  | 0.020   | 2.50  |
| 1N5312      | 3.90                                    | 3.51  | 4.29  | 0.255  | 0.017   | 2.60  |
| 1N5313      | 4.30                                    | 3.87  | 4.73  | 0.245  | 0.014   | 2.75  |
| 1N5314      | 4.70                                    | 4.23  | 5.17  | 0.235  | 0.012   | 2.90  |



**DO-35**

**NOTE 1:** Z<sub>S</sub> is derived by superimposing A 90Hz RMS signal equal to 10% of V<sub>S</sub> on V<sub>S</sub>

**NOTE 2:** Z<sub>K</sub> is derived by superimposing A 90Hz RMS signal equal to 10% of V<sub>K</sub> on V<sub>K</sub>