# High Voltage Diodes - Axial Lead

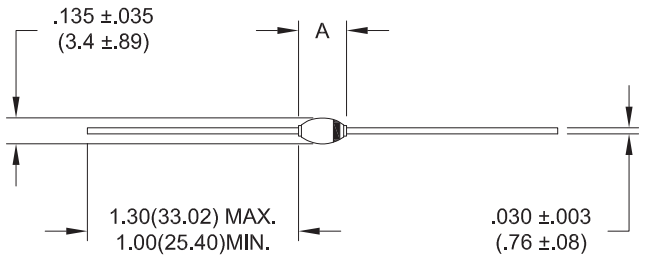
## 100mA - 500mA • 70ns • Hermetic • JANTX • JANTXV

| ELECTRICAL CHARACTERISTICS AND MAXIMUM RATINGS | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Part Number | Working Reverse Voltage (Vrwm) | Average Rectified Current (Io) | | Reverse Current @ Vrwm (Ir) | | Forward Voltage (Vf) | | 1 Cycle Surge Current tp=8.3ms (Ifsm) | Repetitive Surge Current (Ifrm) | Reverse Recovery Time (3) (Trr) | Thermal Impedance $\theta_{J-L}$ | | | Junction Cap. @50VDC @ 1kHZ (Cj) |
| | | 55°C(1) | 100°C(2) | 25°C | 100°C | 25°C | | 25°C | 25°C | 25°C | L=000 | L=.125 | L=.250 | 25°C |
| | Volts | mA | mA | µA | µA | Volts | mA | Amps | Amps | ns | °C/W | °C/W | °C/W | pF |
| 1N6521 | 2000 | 500 | 250 | 0.5 | 20 | 3.0 | 500 | 25 | 5.00 | 70 | 5 | 12 | 22 | 8.0 |
| 1N6523 | 3000 | 250 | 125 | 0.5 | 20 | 5.0 | 250 | 15 | 3.00 | 70 | 5 | 12 | 22 | 4.0 |
| 1N6525 | 5000 | 150 | 75 | 0.5 | 20 | 7.0 | 150 | 10 | 2.00 | 70 | 5 | 12 | 22 | 3.0 |
| 1N6527 | 10000 | 100 | 50 | 0.5 | 20 | 12.0 | 100 | 5 | 1.00 | 70 | 5 | 12 | 22 | 2.0 |

(1)TL=55°C L=0.375" (2)TL=100°C L=0.375" (3)If=125mA, Ir=250mA, Irr=63mA *Op.Temp.= -65°C to +175°C Stg.Temp.= -65°C to +200°C

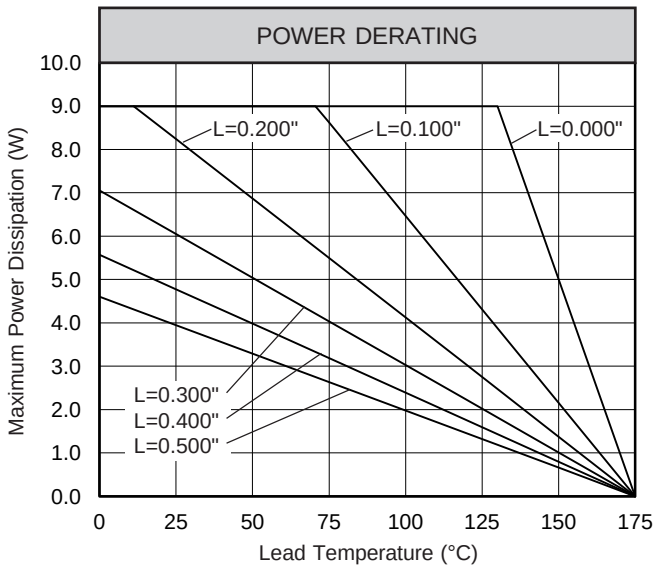


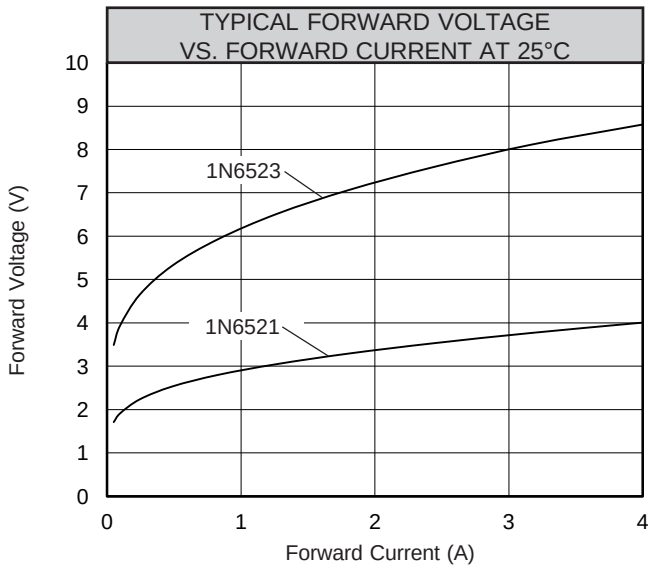
| Part | A |
|---|---|
| 1N6521 | .220(5.59) MAX.<br>.160(4.06) MIN. |
| 1N6523 | .240(6.10) MAX.<br>.180(4.57) MIN. |
| 1N6525 | .260(6.60) MAX.<br>.200(5.08) MIN. |
| 1N6527 | .320(8.13) MAX.<br>.260(6.60) MIN. |

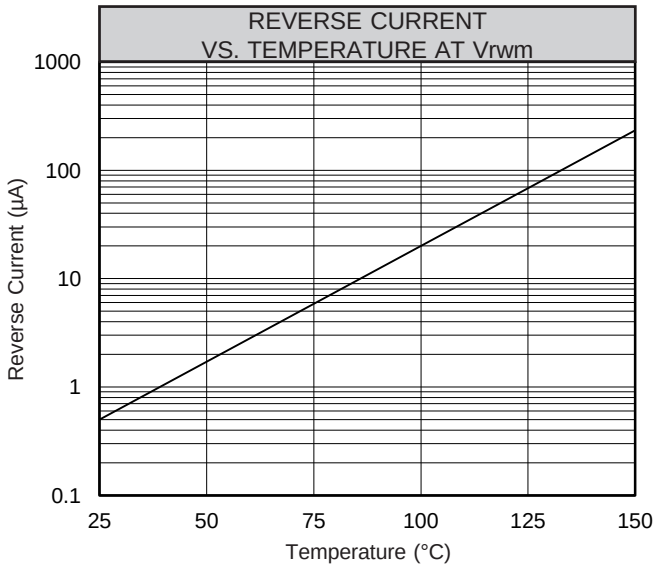


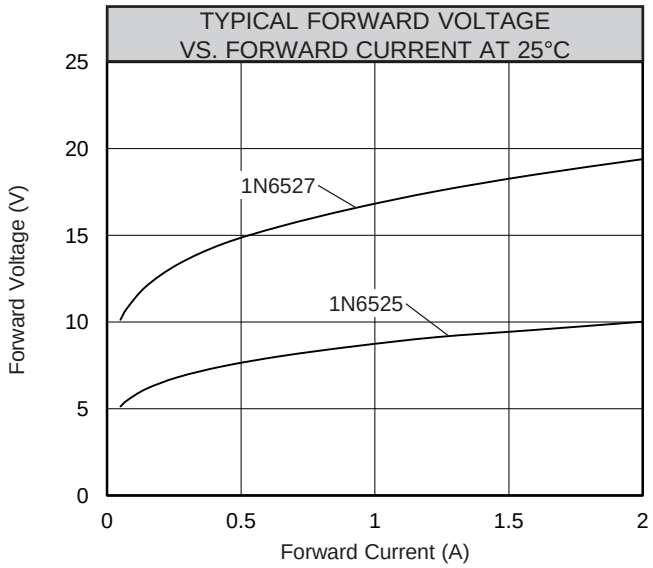

Dimensions: In. (mm) • All temperatures are ambient unless otherwise noted. • Data subject to change without notice.

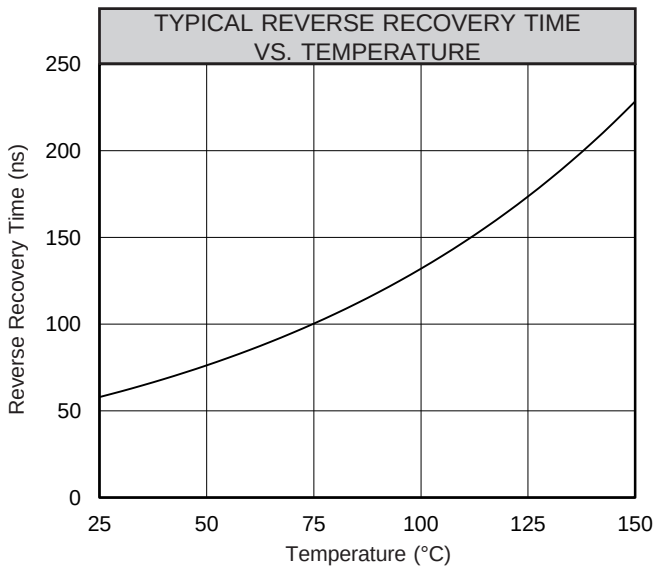
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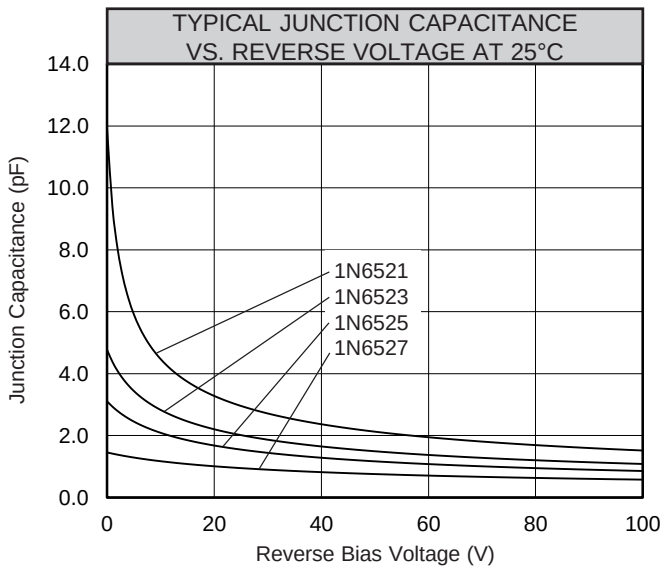

POWER DERATING
Maximum Power Dissipation (W)
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
L=0.200"
L=0.100"
L=0.000"
L=0.300"
L=0.400"
L=0.500"
0
25
50
75
100
125
150
175
Lead Temperature (°C)


TYPICAL FORWARD VOLTAGE
VS. FORWARD CURRENT AT 25°C
Forward Voltage (V)
10
9
8
7
6
5
4
3
2
1
0
1N6523
1N6521
0
1
2
3
4
Forward Current (A)


REVERSE CURRENT
VS. TEMPERATURE AT Vrwm
Reverse Current (µA)
1000
100
10
1
0.1
25
50
75
100
125
150
Temperature (°C)


TYPICAL FORWARD VOLTAGE
VS. FORWARD CURRENT AT 25°C
Forward Voltage (V)
25
20
15
10
5
0
1N6527
1N6525
0
0.5
1
1.5
2
Forward Current (A)


TYPICAL REVERSE RECOVERY TIME
VS. TEMPERATURE
Reverse Recovery Time (ns)
250
200
150
100
50
0
25
50
75
100
125
150
Temperature (°C)


TYPICAL JUNCTION CAPACITANCE
VS. REVERSE VOLTAGE AT 25°C
Junction Capacitance (pF)
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
1N6521
1N6523
1N6525
1N6527
0
20
40
60
80
100
Reverse Bias Voltage (V)