

# 1N6521, 1N6523, 1N6525, 1N6527

0.1A - 0.5A RECTIFIERS

## FEATURES

- Available as High Reliability, JANTX level by adding “-HR” suffix.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding “-PBF” suffix.
- 2,000V – 10,000V working reverse voltage
- 70ns recovery time
- Operating junction temperature: -65°C to +175°C.
- Storage temperature range: -65°C to +200°C.

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

| Part Number | Working Reverse Voltage (V <sub>RWM</sub> ) | Average Rectified Current (I <sub>o</sub> ) |                      | Reverse Current @ V <sub>RWM</sub> (I <sub>R</sub> ) |       | Forward Voltage (V <sub>F</sub> ) |      | 1 Cycle Surge Current t <sub>p</sub> = 8.3ms (I <sub>FSM</sub> ) | Rep. Surge Current (I <sub>FRM</sub> ) | Reverse Recovery Time <sup>(3)</sup> (t <sub>rr</sub> ) | Thermal Impedance (Θ <sub>J-L</sub> ) |           |           | Junction Cap. @ 50VDC @1kHz (C <sub>J</sub> ) |
|-------------|---------------------------------------------|---------------------------------------------|----------------------|------------------------------------------------------|-------|-----------------------------------|------|------------------------------------------------------------------|----------------------------------------|---------------------------------------------------------|---------------------------------------|-----------|-----------|-----------------------------------------------|
|             |                                             | 55°C <sup>(1)</sup>                         | 100°C <sup>(2)</sup> | 25°C                                                 | 100°C | 25°C                              |      | 25°C                                                             | 25°C                                   | 25°C                                                    | L = 0.000                             | L = 0.125 | L = 0.250 | 25°C                                          |
|             |                                             | A                                           | A                    | μA                                                   | μA    | V                                 | A    | A                                                                | A                                      | ns                                                      | °C/W                                  | °C/W      | °C/W      | pF                                            |
| 1N6521      | 2000                                        | 0.500                                       | 0.250                | 0.5                                                  | 20    | 3.0                               | 0.50 | 25                                                               | 5                                      | 70                                                      | 5                                     | 12        | 21.5      | 8                                             |
| 1N6523      | 3000                                        | 0.250                                       | 0.125                | 0.5                                                  | 20    | 5.0                               | 0.25 | 15                                                               | 3                                      | 70                                                      | 5                                     | 12        | 21.5      | 4                                             |
| 1N6525      | 5000                                        | 0.150                                       | 0.075                | 0.5                                                  | 20    | 7.0                               | 0.15 | 10                                                               | 2                                      | 70                                                      | 5                                     | 12        | 21.5      | 3                                             |
| 1N6527      | 10000                                       | 0.100                                       | 0.050                | 0.5                                                  | 20    | 12.0                              | 0.10 | 5                                                                | 1                                      | 70                                                      | 5                                     | 12        | 21.5      | 2                                             |

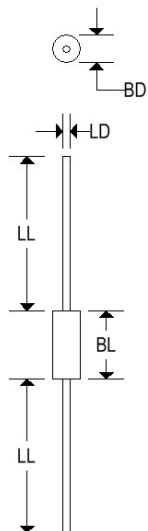
Note 1: T<sub>L</sub> = 55°C, L = 0.375"

Note 2: T<sub>L</sub> = 100°C, L = 0.375"

Note 3: I<sub>F</sub> = 125mA, I<sub>R</sub> = 250mA, I<sub>rr</sub> = 63mA

## MECHANICAL CHARACTERISTICS

|          |                                      |
|----------|--------------------------------------|
| Case     | Digi BB(X) Hermetically sealed glass |
| Marking  | Body painted, alpha-numeric          |
| Polarity | Cathode band                         |



| Part Number      |    | DIGIBB(X) |       |             |        |
|------------------|----|-----------|-------|-------------|--------|
|                  |    | Inches    |       | Millimeters |        |
|                  |    | Min       | Max   | Min         | Max    |
| ALL              | BD | 0.090     | 0.160 | 2.286       | 4.064  |
| ALL              | LD | 0.027     | 0.033 | 0.686       | 0.838  |
| ALL              | LL | 1.000     | 1.300 | 25.400      | 33.020 |
| 1N6521 DIGIBB(1) | BL | -         | 0.220 | -           | 5.590  |
| 1N6523 DIGIBB(2) | BL | -         | 0.240 | -           | 6.100  |
| 1N6525 DIGIBB(3) | BL | -         | 0.260 | -           | 6.600  |
| 1N6527 DIGIBB(4) | BL | -         | 0.510 | -           | 12.954 |

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