

1N6073-1N6081

Ultra Fast Rectifiers

FEATURES:

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number
- Available Non-RoHS (standard) or RoHS compliant (add PBF suffix)
- Metallurgically bonded
- Ultra fast recovery

MAXIMUM RATINGS

| Operating and Storage Temperature: | -65°C to +155°C |
|------------------------------------|-----------------|
|------------------------------------|-----------------|

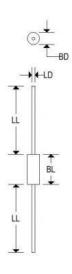
ELECTRICAL CHARACTERISTICS @ 25°C unless otherwise noted

| Туре | Peak Inverse Voltage PIV | Forward Voltage V _F (Pulsed) | Average Rectified Current Io | Reverse Current @ PIV I _R | Reverse* Recovery Time t _{rr} | Surge Current I _F (SURGE) |
|--------|--------------------------------|--|------------------------------------|--|--|---|
| | VOLTS | VOLTS | AMPS | μΑ | ns | AMPS |
| 1N6073 | 50 | 2.04 | 3.0 | 1.0 | 30 | 35 |
| 1N6074 | 100 | 2.04 | 3.0 | 1.0 | 30 | 35 |
| 1N6075 | 150 | 2.04 | 3.0 | 1.0 | 30 | 35 |
| 1N6076 | 50 | 1.76 | 6.0 | 5.0 | 30 | 75 |
| 1N6077 | 100 | 1.76 | 6.0 | 5.0 | 30 | 75 |
| 1N6078 | 150 | 1.76 | 6.0 | 5.0 | 30 | 75 |
| 1N6079 | 50 | 1.50 | 12.0 | 10.0 | 30 | 175 |
| 1N6080 | 100 | 1.50 | 12.0 | 10.0 | 30 | 175 |
| 1N6081 | 150 | 1.50 | 12.0 | 10.0 | 30 | 175 |



MECHANICAL CHARACTERISTICS

| Case Digi A (1N6073-1N6075) | |
|-----------------------------|--|
| Marking Alpha-numeric | |
| Polarity Cathode band | |



| | Digi A | | | | |
|----|--------|-------|-------------|--------|--|
| | Inc | hes | Millimeters | | |
| | Min | Max | Min | Max | |
| BD | 0.060 | 0.095 | 1.524 | 2.413 | |
| BL | 0.125 | 0.205 | 3.175 | 5.207 | |
| LD | 0.026 | 0.033 | 0.660 | 0.838 | |
| LL | 1.000 | 1.500 | 25.400 | 38.100 | |

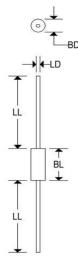
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BL includes slugs and uncontrolled area of the leads

MECHANICAL CHARACTERISTICS

| Case Digi B (1N6076-1N6078) | |
|-------------------------------------|--|
| Marking Body painted, alpha-numeric | |
| Polarity Cathode band | |

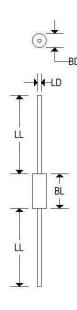


| | Digi B | | | | | |
|----|--------|-------|-------------|--------|--|--|
| | Inc | hes | Millimeters | | | |
| | Min | Max | Min | Max | | |
| BD | 0.115 | 0.142 | 2.921 | 3.607 | | |
| BL | 0.130 | 0.260 | 3.302 | 6.604 | | |
| LD | 0.036 | 0.042 | 0.914 | 1.067 | | |
| LL | 1.000 | 1.500 | 25.400 | 38.100 | | |



MECHANICAL CHARACTERISTICS

| Case Digi G (1N6079-1N6081) | |
|-------------------------------------|--|
| Marking Body painted, alpha-numeric | |
| Polarity Cathode band | |



| | Digi G | | | | |
|----|--------|-------|--------|--------|--|
| | Inc | hes | Millin | neters | |
| | Min | Max | Min | Max | |
| BD | 0.135 | 0.185 | 3.430 | 4.700 | |
| BL | 0.140 | 0.195 | 3.560 | 4.950 | |
| LD | 0.036 | 0.042 | 0.910 | 1.067 | |
| LL | 1.000 | 1.300 | 25.400 | 33.020 | |

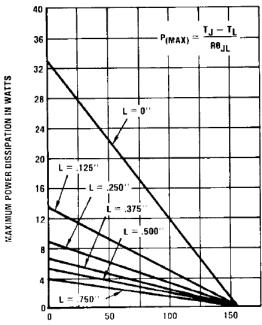
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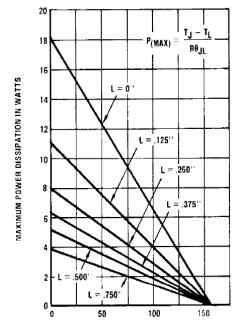
| L | $R_{	heta JL}$ |
|---------------|----------------|
| Inches (mm) | °C/W |
| 0.000 | 5.0 |
| 0.125 (3.17) | 11.5 |
| 0.250 (6.35) | 17.5 |
| 0.375 (9.53) | 23.5 |
| 0.500 (12.70) | 29.0 |
| 0.750 (19.05) | 40.0 |

Maximum lead temperatures in $^{\circ}C$ (T_L) at point "L" from body (for maximum operating junction temperature with equal two-lead conditions)

Notes:

Dimensions are in inches. Metric equivalents are based upon 1 inch = 25.4 mm.

Maximum power in watts vs lead temperature for 1N6079, 1N6080 and 1N6081



| L | $R_{	heta JL}$ |
|---------------|----------------|
| Inches (mm) | °C/W |
| 0.000 | 8.5 |
| 0.125 (3.17) | 14.0 |
| 0.250 (6.35) | 19.5 |
| 0.375 (9.53) | 25.0 |
| 0.500 (12.70) | 30.0 |
| 0.750 (19.05) | 40.0 |

Maximum lead temperatures in $^{\circ}$ C (T_L) at point "L" from body (for maximum operating junction temperature with equal two-lead conditions)

Notes:

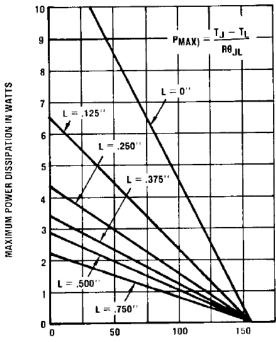
Dimensions are in inches. Metric equivalents are based upon 1 inch = 25.4 mm.

Maximum power in watts vs lead temperature for 1N6076, 1N6077 and 1N6078



1N6073-1N6081

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| | L | $R_{	heta JL}$ |
|---|---------------|----------------|
| | Inches (mm) | °C/W |
| | 0.000 | 13 |
| | 0.125 (3.17) | 24 |
| | 0.250 (6.35) | 35 |
| | 0.375 (9.53) | 46 |
| | 0.500 (12.70) | 54 |
| Γ | 0.750 (19.05) | 70 |

Maximum lead temperatures in $^{\circ}C$ (T_L) at point "L" from body (for maximum operating junction temperature with equal two-lead conditions)

Notes:

Dimensions are in inches. Metric equivalents are based upon 1 inch = 25.4 mm.

Maximum power in watts vs lead temperatures for 1N6073, 1N6074 and 1N6075