Microsemi Corp.
The diode experts

SANTA ANA, CA
For more information call:
(714) 979-8220

ALSO AVAILABLE IN SURFACE MOUNT

1N6073 thru 1N6081

ULTRA FAST POWER RECTIFIERS

FEATURES

- Triple layer passivation.
- Metallurgically bonded.
- Ultra fast recovery.
- Voidless hermetically sealed glass package.
- JAN/TX/TXV available for 1N6074, 1N6075 per MIL-S-19500/503.

MAXIMUM RATINGS

Operating Temperature: −65°C to +155°C.
Storage Temperature: −65°C to +155°C.

ELECTRICAL CHARACTERISTICS

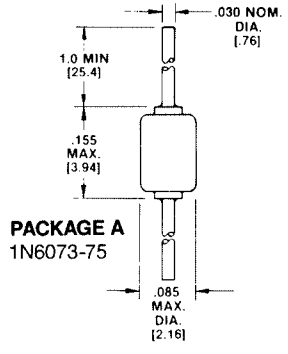
(@ 25°C unless otherwise specified)

TYPE	PEAK INVERSE VOLTAGE PIV	FORWARD VOLTAGE V_F (PULSED)	AVERAGE RECTIFIED CURRENT I_O	REVERSE CURRENT @ PIV I_R	REVERSE* RECOVERY TIME t_{rr}	SURGE CURRENT I_F (SURGE)
	VOLTS	VOLTS	AMPS	μA	nsec	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

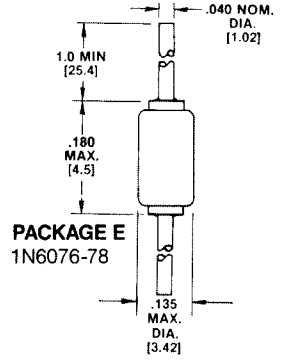
*NOTE: $I_F = 0.5A$, $I_R = -1.0A$ and $I_{RR} = -0.25A$

MECHANICAL CHARACTERISTICS

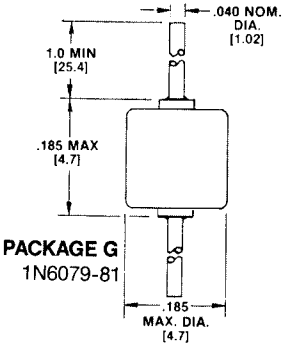
Case: Hermetically sealed hard glass.
Lead Material: 1N6073-75 — Tinned copper.
1N6076-78 — Tinned copper or silver-clad copper.
1N6079-81 — Tinned copper or silver-clad copper.
Marking: Body painted, alpha numeric.
Polarity: Cathode band.



PACKAGE A
1N6073-75



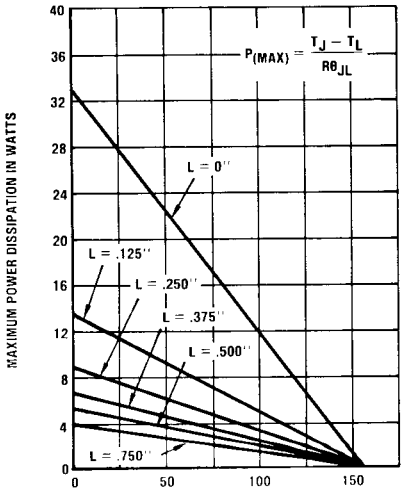
PACKAGE E
1N6076-78



PACKAGE G
1N6079-81

FIGURE 1

1N6073 thru 1N6081

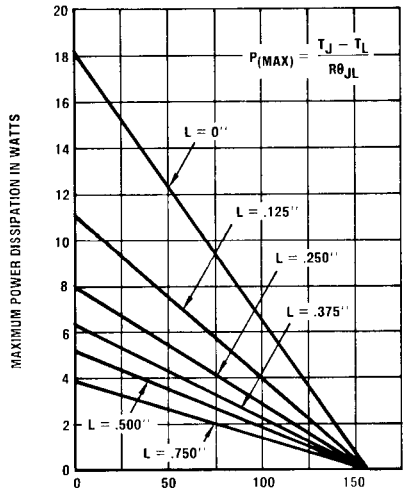


L	$R\theta_{JL}$
INCHES (mm)	°C/W
0.000	5.0
0.125 (3.17)	11.5
0.250 (6.35)	17.5
0.375 (9.53)	23.5
0.500 (12.70)	29.0
0.750 (19.05)	40.0

Maximum lead temperature in °C (T_L) at point "L" from body (for maximum operating junction temperature with equal two-lead conditions).

NOTES:
1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.

FIGURE 2. Maximum power in watts vs lead temperature for 1N6079, 1N6080 and 1N6081

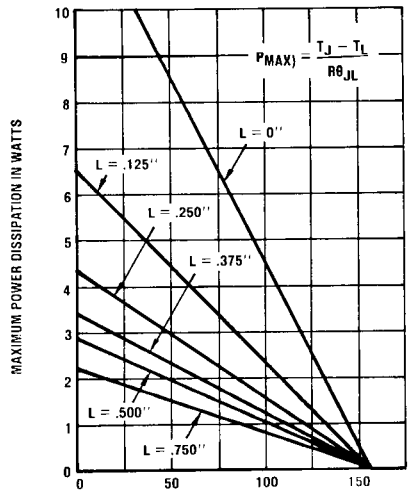


L	$R\theta_{JL}$
INCHES (mm)	°C/W
0.000	8.5
0.125 (3.17)	14.0
0.250 (6.35)	19.5
0.375 (9.53)	25.0
0.500 (12.70)	30.0
0.750 (19.05)	40.0

Maximum lead temperature in °C (T_L) at point "L" from body (for maximum operating junction temperature with equal two-lead conditions).

NOTES:
1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.

FIGURE 3. Maximum power in watts vs lead temperature for 1N6076, 1N6077 and 1N6078



L	$R\theta_{JL}$
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
0.750 (19.05)	70

Maximum lead temperature in °C (T_L) at point "L" from body (for maximum operating junction temperature with equal two-lead conditions).

NOTES:
1. Dimensions are in inches.
2. Metric equivalents (to the nearest .01 mm) are given for general information only and are based upon 1 inch = 25.4 mm.

FIGURE 4. Maximum power in watts vs lead temperature for 1N6073, 1N6074 and 1N6075