

# 10 WATT SILICON ZENER DIODES

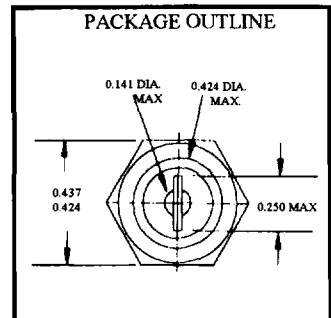
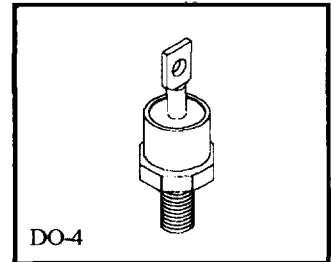
Available in Voltages from 6.8 thru 200 V

## FEATURES:

- ZENER VOLTAGE 6.8 TO 200 V
- VOLTAGE TOLERANCES;  $\pm 5\%$ ,  $\pm 10\%$ ,  $\pm 20\%$
- HIGHLY RELIABLE AND RUGGED
- HERMETICALLY SEALED
- MATTE TIN PLATED
- CUSTOM DESIGNS AVAILABLE ~ CONSULT FACTORY

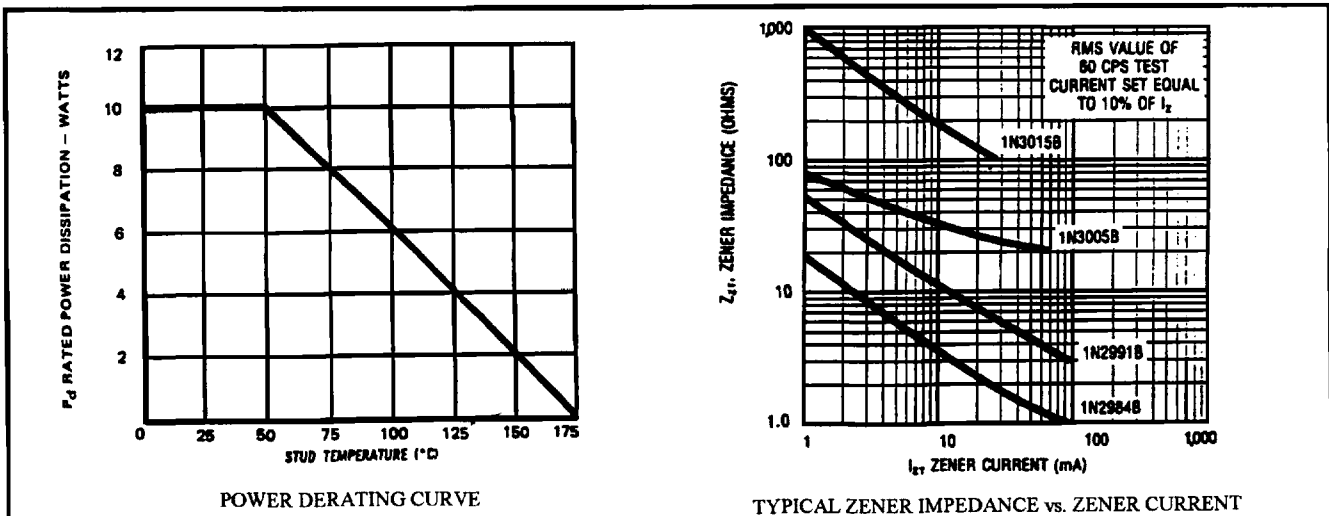
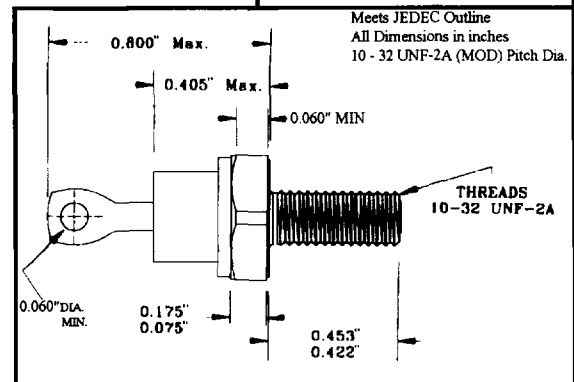
## POLARITY:

1N2970 -1N3015: Std. Polarity is anode to stud. Reverse polarity indicated by suffix "R".



## MAXIMUM RATINGS:

Junction and Storage Temperatures	-65°C to +175°C
DC Power Dissipation:	10 Watts
Power Derating:	80 mW/°C above 50°C
Forward Voltage @ 2.0 A:	1.5 Volts Max



NE001 1/96

# NEW ENGLAND SEMICONDUCTOR

## 1N2970B thru 1N3015B

TYPE*	NOMINAL ZENER VOLTAGE $V_Z @ I_{ZT}$ VOLTS	MAX. DYNAMIC IMPEDANCE		MAX. DC ZENNER CURRENT ( $I_{ZM}$ ) @ 75°C STUD TEMP. mA	ZENER TEST CURRENT $I_{ZT}$ mA	TYP. TEMP COEFF $\alpha_{VZ}$ %/°C	MAX LEAKAGE CURRENT		POLARITY
		$Z_{ZT} @ I_{ZT}$ OHMS	$Z_{ZK} @ 1mA (I_{ZK})$ OHMS				$I_R @ V_R$ μA	$V_R$ Volts	
1N2970B	6.8	1.2	500	1320	370	.040	150	5.2	STD. POLARITY ANODE TO STUD
1N2971B	7.5	1.3	250	1180	335	.045	100	5.7	
1N2972B	8.2	1.5	250	1040	305	.048	50	6.2	
1N2973B	9.1	2.0	250	960	275	.051	25	6.9	
1N2974B	10	3	250	860	250	.055	25	7.6	
1N2975B	11	3	250	780	230	.060	10	8.4	
1N2976B	12	3	250	720	210	.065	10	9.1	
1N2977B	13	3	250	660	190	.065	10	9.9	
1N2978B	14	3	250	600	180	.070	10	10.5	
1N2979B	15	3	250	560	170	.070	10	11.4	
1N2980B	16	4	250	530	155	.070	10	12.2	
1N2981B	17	4	250	500	145	.075	10	13.0	
1N2982B	18	4	250	460	140	.075	10	13.7	
1N2983B	19	4	250	440	130	.075	10	14.0	
1N2984B	20	4	250	420	125	.075	10	15.2	
1N2985B	22	5	250	380	115	.080	10	16.7	
1N2986B	24	5	250	350	105	.080	10	18.2	
1N2987B	25	6	250	310	100	.080	10	18.2	
1N2988B	27	7	250	300	95	.085	10	20.6	
1N2989B	30	8	300	280	85	.085	10	22.8	
1N2990B	33	9	300	260	75	.085	10	25.1	
1N2991B	36	10	300	230	70	.085	10	27.4	
1N2992B	39	11	300	210	65	.090	10	29.7	
1N2993B	43	12	400	195	60	.090	10	32.7	
1N2994B	45	13	400	185	55	.090	10	33.0	
1N2995B	47	14	400	175	55	.090	10	35.8	
1N2996B	50	15	500	165	50	.090	10	36.0	
1N2997B	51	15	500	160	50	.090	10	38.8	
1N2998B	52	15	500	160	50	.090	10	39.0	
1N2999B	56	16	500	150	45	.090	10	42.6	
1N3000B	62	17	600	130	40	.090	10	47.1	
1N3001B	68	18	600	120	37	.090	10	51.7	
1N3002B	75	22	600	110	33	.090	10	56.0	
1N3003B	82	25	700	100	30	.090	10	62.2	
1N3004B	91	35	800	85	28	.090	10	69.2	
1N3005B	100	40	900	80	25	.090	10	76.0	
1N3006B	105	45	1000	75	25	.095	10	76.0	
1N3007B	110	55	1100	72	23	.095	10	83.6	
1N3008B	120	75	1200	67	20	.095	10	91.2	
1N3009B	130	100	1300	62	19	.095	10	98.8	
1N3010B	140	125	1400	58	18	.095	10	100.0	
1N3011B	150	175	1500	54	17	.095	10	114.0	
1N3012B	160	200	1600	50	16	.095	10	121.6	
1N3013B	175	250	1750	46	14	.095	10	135.0	
1N3014B	180	260	1850	45	14	.095	10	136.8	
1N3015B	200	300	2000	40	12	.100	10	152.0	

\* Suffix 'B' indicates ± 5% tolerance.

\* Suffix 'A' indicates ± 10% tolerance.

\* No suffix indicates ± 20% tolerance.