

1N3004-1N3031

TYPE	MATERIAL	REPLACEMENT	PAGE NUMBER	IDENTIFICATION	RECTIFIERS					ZENER DIODES			
					V_R (volts)	V_F (volts)	I_O (Amps)	I_R (mA)	I_{surge} (Amps)	V_Z (min)	V_Z (nom) *	ToI	P_D
					SIGNAL DIODES					REFERENCE DIODES			
					PRV (volts)	V_F @ I_F (volts)	I_R	t_r (μs)		TC %/°C	V_Z	T (min) °C	T (max) °C
1N3004	S		2-19	ZD							91*	20	10W
1N3004A	S		2-19	ZD							91*	10	10W
1N3004B	S		2-19	ZD							91*	5.0	10W
1N3005	S		2-19	ZD							100*	20	10W
1N3005A	S		2-19	ZD							100*	10	10W
1N3005B	S		2-19	ZD							100*	5.0	10W
1N3006	S		2-19	ZD							105*	20	10W
1N3006A	S		2-19	ZD							105*	10	10W
1N3006B	S		2-19	ZD							105*	5.0	10W
1N3007	S		2-19	ZD							110*	20	10W
1N3007A	S		2-19	ZD							110*	10	10W
1N3007B	S		2-19	ZD							110*	5.0	10W
1N3008	S		2-19	ZD							120*	20	10W
1N3008A	S		2-19	ZD							120*	10	10W
1N3008B	S		2-19	ZD							120*	5.0	10W
1N3009	S		2-19	ZD							130*	20	10W
1N3009A	S		2-19	ZD							130*	10	10W
1N3009B	S		2-19	ZD							130*	5.0	10W
1N3010	S		2-19	ZD							140*	20	10W
1N3010A	S		2-19	ZD							140*	10	10W
1N3010B	S		2-19	ZD							140*	5.0	10W
1N3011	S		2-19	ZD							150*	20	10W
1N3011A	S		2-19	ZD							150*	10	10W
1N3011B	S		2-19	ZD							150*	5.0	10W
1N3012	S		2-19	ZD							160*	20	10W
1N3012A	S		2-19	ZD							160*	10	10W
1N3012B	S		2-19	ZD							160*	5.0	10W
1N3013	S		2-19	ZD							175*	20	10W
1N3013A	S		2-19	ZD							175*	10	10W
1N3013B	S		2-19	ZD							175*	5.0	10W
1N3014	S		2-19	ZD							180*	20	10W
1N3014A	S		2-19	ZD							180*	10	10W
1N3014B	S		2-19	ZD							180*	5.0	10W
1N3015	S		2-19	ZD							200*	20	10W
1N3015A	S		2-19	ZD							200*	10	10W
1N3015B	S		2-19	ZD							200*	5.0	10W
1N3016	S		2-20	ZD							6.8*	20	1.0W
1N3016A	S		2-20	ZD							6.8*	10	1.0W
1N3016B	S		2-20	ZD							6.8*	5.0	1.0W
1N3017	S		2-20	ZD							7.5*	20	1.0W
1N3017A	S		2-20	ZD							7.5*	10	1.0W
1N3017B	S		2-20	ZD							7.5*	5.0	1.0W
1N3018	S		2-20	ZD							8.2*	20	1.0W
1N3018A	S		2-20	ZD							8.2*	10	1.0W
1N3018B	S		2-20	ZD							8.2*	5.0	1.0W
1N3019	S		2-20	ZD							9.1*	20	1.0W
1N3019A	S		2-20	ZD							9.1*	10	1.0W
1N3019B	S		2-20	ZD							9.1*	5.0	1.0W
1N3020	S		2-20	ZD							10*	20	1.0W
1N3020A	S		2-20	ZD							10*	10	1.0W
1N3020B	S		2-20	ZD							10*	5.0	1.0W
1N3021	S		2-20	ZD							11*	20	1.0W
1N3021A	S		2-20	ZD							11*	10	1.0W
1N3021B	S		2-20	ZD							11*	5.0	1.0W
1N3022	S		2-20	ZD							12*	20	1.0W
1N3022A	S		2-20	ZD							12*	10	1.0W
1N3022B	S		2-20	ZD							12*	5.0	1.0W
1N3023	S		2-20	ZD							13*	20	1.0W
1N3023A	S		2-20	ZD							13*	10	1.0W
1N3023B	S		2-20	ZD							13*	5.0	1.0W
1N3024	S		2-20	ZD							15*	20	1.0W
1N3024A	S		2-20	ZD							15*	10	1.0W
1N3024B	S		2-20	ZD							15*	5.0	1.0W
1N3025	S		2-20	ZD							16*	20	1.0W
1N3025A	S		2-20	ZD							16*	10	1.0W
1N3025B	S		2-20	ZD							16*	5.0	1.0W
1N3026	S		2-20	ZD							18*	20	1.0W
1N3026A	S		2-20	ZD							18*	10	1.0W
1N3026B	S		2-20	ZD							18*	5.0	1.0W
1N3027	S		2-20	ZD							20*	20	1.0W
1N3027A	S		2-20	ZD							20*	10	1.0W
1N3027B	S		2-20	ZD							20*	5.0	1.0W
1N3028	S		2-20	ZD							22*	20	1.0W
1N3028A	S		2-20	ZD							22*	10	1.0W
1N3028B	S		2-20	ZD							22*	5.0	1.0W
1N3029	S		2-20	ZD							24*	20	1.0W
1N3029A	S		2-20	ZD							24*	10	1.0W
1N3029B	S		2-20	ZD							24*	5.0	1.0W
1N3030	S		2-20	ZD							27*	20	1.0W
1N3030A	S		2-20	ZD							27*	10	1.0W
1N3030B	S		2-20	ZD							27*	5.0	1.0W
1N3031	S		2-20	ZD							30*	20	1.0W

R—Rectifier, RD—Reference Diode, ZD—Zener Diode, GP—General Purpose, MC—High Conductance (≥ 20 mA @ ≤ 1 V), HS—High Speed Switch (Max $t_r < 0.3 \mu s$), CS—High Conductance, High Speed Switch, MS—Medium Speed Switch, PA—Parametric Amplifier, SP—Special Purpose.

QUICK SELECTOR GUIDE

1 WATT Cathode to Case		1½ WATT Cathode to Case	10 WATT Cathode to Case = 1N3993 series Anode to Case = 1N2970 series		50 WATT Anode to Case		Nominal Zener Voltage	
 CASE 52		 CASE 55	 CASE 56		 CASE 54	 CASE 58		
INDUSTRIAL (NOTE 2, 3)	MIL-S-19500/115 *	INDUSTRIAL (NOTE 3)	INDUSTRIAL (NOTE 2, 3, 4)	MIL-S-19500/272 (1N3993A-4000A) * MIL-S-19500/125 (1N2970B-3015B) (NOTE 4)	INDUSTRIAL (NOTE 3, 4)	MIL-S-19500/114 (NOTE 4) *	INDUSTRIAL (NOTE 3, 4)	(NOTE 6)
1N3821 1N3822 1N3823	1N3821A 1N3822A 1N3823A		1N3993&R	1N3993A&RA	1N4557&R		1N4549&R	2.4 2.7 3.0 3.3 3.6 3.9
1N3824 1N3825 1N3826 1N3827 1N3828	1N3824A 1N3825A 1N3826A 1N3827A 1N3828A		1N3994&R 1N3995&R 1N3996&R 1N3997&R 1N3998&R	1N3994A&RA 1N3995A&RA 1N3996A&RA 1N3997A&RA 1N3998A&RA	1N4558&R 1N4559&R 1N4560&R 1N4561&R 1N4562&R		1N4550&R 1N4551&R 1N4552&R 1N4553&R 1N4554&R	4.3 4.7 5.1 5.6 6.2
1N3829 1N3016	1N3016B	1N3785	1N3999&R 1N2970&R	1N3999A&RA 1N2970B&RB	1N4563&R 1N2804&R	1N2804B&RB	1N4555&R 1N3305&R	6.8
1N3830 1N3017	1N3017B	1N3786	1N4000&R 1N2971&R	1N4000A&RA 1N2971B&RB	1N4564&R 1N2805&R	1N2805B&RB	1N4556&R 1N3306&R	7.5
1N3018	1N3018B	1N3787	1N2972&R	1N2972B&RB	1N2806&R	1N2806B&RB	1N3307&R	8.2
1N3019	1N3019B	1N3788	1N2973&R	1N2973B&RB	1N2807&R	1N2807B&RB	1N3308&R	9.1
1N3020	1N3020B	1N3789	1N2974&R	1N2974B&RB	1N2808&R	1N2808B&RB	1N3309&R	10
1N3021	1N3021B	1N3790	1N2975&R	1N2975B&RB	1N2809&R	1N2809B&RB	1N3310&R	11
1N3022	1N3022B	1N3791	1N2976&R	1N2976B&RB	1N2810&R	1N2810B&RB	1N3311&R	12
1N3023 1N3024 1N3025 1N3026 1N3027 1N3028	1N3023B 1N3024B 1N3025B 1N3026B 1N3027B 1N3028B	1N3792 1N3793 1N3794 1N3795 1N3796 1N3797	1N2977&R 1N2978&R 1N2980&R 1N2982&R 1N2984&R 1N2985&R	1N2977B&RB 1N2978B&RB 1N2980B&RB 1N2982B&RB 1N2984B&RB 1N2985B&RB	1N2811&R 1N2813&R 1N2814&R 1N2816&R 1N2818&R 1N2819&R	1N2811B&RB 1N2813B&RB 1N2814B&RB 1N2816B&RB 1N2818B&RB 1N2819B&RB	1N3312&R 1N3314&R 1N3315&R 1N3317&R 1N3319&R 1N3320&R	13 15 16 18 20 22
1N3029 1N3030 1N3031 1N3032 1N3033 1N3034	1N3029B 1N3030B 1N3031B 1N3032B 1N3033B 1N3034B	1N3798 1N3799 1N3800 1N3801 1N3802 1N3803	1N2986&R 1N2988&R 1N2989&R 1N2990&R 1N2991&R 1N2992&R	1N2986B&RB 1N2988B&RB 1N2989B&RB 1N2990B&RB 1N2991B&RB 1N2992B&RB	1N2820&R 1N2822&R 1N2823&R 1N2824&R 1N2825&R 1N2826&R	1N2820B&RB 1N2822B&RB 1N2823B&RB 1N2824B&RB 1N2825B&RB 1N2826B&RB	1N3321&R 1N3323&R 1N3324&R 1N3325&R 1N3326&R 1N3327&R	24 27 30 33 36 39
1N3035 1N3036 1N3037 1N3038 1N3039 1N3040	1N3035B 1N3036B 1N3037B 1N3038B 1N3039B 1N3040B	1N3804 1N3805 1N3806 1N3807 1N3808 1N3809	1N2993&R 1N2995&R 1N2997&R 1N2999&R 1N3000&R 1N3001&R	1N2993B&RB 1N2995B&RB 1N2997B&RB 1N2999B&RB 1N3000B&RB 1N3001B&RB	1N2827&R 1N2829&R 1N2831&R 1N2832&R 1N2833&R 1N2834&R	1N2827B&RB 1N2829B&RB 1N2831B&RB 1N2832B&RB 1N2833B&RB 1N2834B&RB	1N3328&R 1N3330&R 1N3332&R 1N3334&R 1N3335&R 1N3336&R	43 47 51 56 62 68
1N3041 1N3042 1N3043 1N3044 1N3045 1N3046	1N3041B 1N3042B 1N3043B 1N3044B 1N3045B 1N3046B	1N3810 1N3811 1N3812 1N3813 1N3814 1N3815	1N3002&R 1N3003&R 1N3004&R 1N3005&R 1N3007&R 1N3008&R	1N3002B&RB 1N3003B&RB 1N3004B&RB 1N3005B&RB 1N3007B&RB 1N3008B&RB	1N2835&R 1N2836&R 1N2837&R 1N2838&R 1N2840&R 1N2841&R	1N2835B&RB 1N2836B&RB 1N2837B&RB 1N2838B&RB 1N2840B&RB 1N2841B&RB	1N3337&R 1N3338&R 1N3339&R 1N3340&R 1N3342&R 1N3343&R	75 82 91 100 110 120
1N3047 1N3048 1N3049 1N3050 1N3051	1N3047B 1N3048B 1N3049B 1N3050B 1N3051B	1N3816 1N3817 1N3818 1N3819 1N3820	1N3009&R 1N3011&R 1N3012&R 1N3014&R 1N3015&R	1N3009B&RB 1N3011B&RB 1N3012B&RB 1N3014B&RB 1N3015B&RB	1N2842&R 1N2843&R 1N2844&R 1N2845&R 1N2846&R	1N2842B&RB 1N2843B&RB 1N2844B&RB 1N2845B&RB 1N2846B&RB	1N3344&R 1N3346&R 1N3347&R 1N3349&R 1N3350&R	130 150 160 180 200

4. R, RA & RB = Reverse Polarity Types Available.

5. No suffix is $\pm 10\%$ tolerance, "A" suffix is $\pm 10\%$ tolerance, "B" suffix is $\pm 5\%$ tolerance.

6. Contact your Semiconductor Representative for information on Military and Meg A-Life II Types and Intermediate voltages.

* Military and Meg-A-Life II Types