

TYPE	MATERIAL	REPLACEMENT	PAGE NUMBER	IDENTIFICATION	RECTIFIERS					ZENER DIODES			
					V_R (volts)	V_F (volts)	I_O (Amps)	I_R (mA)	I_{large} (Amps)	V_Z (min)	V_Z (nom) *	Tol V_Z %	P_D
					SIGNAL DIODES					REFERENCE DIODES			
					P_{RV} (volts)	V_F @ I_F (volts)		I_R	t_r (μ s)	TC %/°C	V_Z	T (min) °C	T (max) °C
1N767	S		2-11	ZD						13.5	18.0		250M
1N768	S		2-11	ZD						17.0	21.0		250M
1N769	S		2-11	ZD						20.0	27.0		250M
1N770	G			MS	20	0.42	5.0M	40*	0.35				
1N771	G			HC	80	1.0	100M	25*					
1N771A	G			HC	80	1.0	200M	25*					
1N771B	G			HC	80	1.0	400M	25*					
1N772	G			HC	70	1.0	100M	50*					
1N772A	G			HC	70	1.0	200M	50*					
1N773	G			HC	65	1.0	100M	10*					
1N773A	G			HC	65	1.0	200M	10*					
1N774	G			HC	60	1.0	100M	15*					
1N774A	G			HC	60	1.0	200M	15*					
1N775	G			HC	60	1.0	100M	20*					
1N776	G			HC	20	1.0	50M	200*					
1N777	G			HC	60	1.0	100M	25*	3.5				
1N778	S			MS	100	1.0	10M	0.5*	0.3				
1N779	S			MS	175	1.0	10M	0.5*	0.3				
1N781	G			MS	40	0.45	10M	5.0*	0.5				
1N781A	G			MS	40	0.45	10M	5.0*	0.5				
1N789	S			HS		1.0	10M	1.0*	0.5				
1N790	S			MS		1.0	10M	5.0*	0.25				
1N791	S			HC		1.0	50M	5.0*	0.5				
1N792	S			HC		1.0	100M	5.0*	0.5				
1N793	S			MS		1.0	10M	1.0*	0.5				
1N794	S			HS		1.0	10M	5.0*	0.25				
1N795	S			HC		1.0	50M	5.0*	0.5				
1N796	S			HC		1.0	100M	5.0*	0.5				
1N797	S			MS		1.0	10M	1.0*	0.5				
1N798	S			HS		1.0	10M	5.0*	0.25				
1N799	S			HC		1.0	50M	5.0*	0.5				
1N800	S			HC		1.0	100M	5.0*	0.5				
1N801	S			MS		1.0	10M	1.0*	0.5				
1N802	S			MS		1.0	50M	5.0*	0.5				
1N803	S			MS		1.0	10M	5.0*	0.5				
1N804	S			HC		1.0	50M	10*	0.5				
1N805	G			GP	40	1.0	3.0M	100*					
1N806	S			MS	100	1.0	4.0M	0.5*	0.3				
1N807	S			MS	180	1.0	4.0M	0.5*	0.3				
1N808	S			HC	100	1.0	100M	1.0*	0.3				
1N809	S			HC	200	1.0	100M	1.0*	0.3				
1N810	S			HS	50	1.0	10M	1.0*	50				
1N811	S			HS	20	1.0	1.0M	1.0*	0.25				
1N812	S			HS	30	1.0	1.0M	0.1*	0.25				
1N813	S			HS	15	1.0	5.0M	0.5*	0.25				
1N814	S			HS	40	1.0	2.0M	0.1*	0.25				
1N815	S			CS	15	1.5	100M	0.5*	0.25				
1N816	S			HC	6.0	1.0	100M	0.1*					
1N817	S			GP	200	1.5	6.0M	20*	1.0				
1N818	S			MS	80	1.5	30M	0.25*	0.5				
1N819	S			HC	80	1.0	200M	25M					
1N821	S		2-45	RD						0.01	6.2	-55	100
1N821A	S		2-45	RD						0.01	6.2	-55	100
1N822	S			RD						0.01	6.2	-55	100
1N823	S		2-45	RD						0.005	6.2	-55	100
1N823A	S		2-45	RD						0.005	6.2	-55	100
1N824	S			RD						0.005	6.2	-55	100
1N825	S		2-45	RD						0.002	6.2	-55	100
1N825A	S		2-45	RD						0.002	6.2	-55	100
1N826	S			RD						0.002	6.5	-50	100
1N827	S		2-45	RD						0.001	6.2	-55	100
1N827A	S		2-45	RD						0.001	6.2	-55	100
1N828	S			RD						0.001	6.5	-50	100
1N829	S		2-45	RD						0.0005	6.2	-50	100
1N830	S	Micro-min. UHF Detector											
1N830A	S	Micro-min. UHF Detector											
1N831	S	Microwave S-band Mixer; NF = 8.3 to 6.5 dB											
1N831A	S	Microwave S-band Mixer; NF = 8.3 to 6.5 dB											
1N831B	S	Microwave S-band Mixer; NF = 8.3 to 6.5 dB											
1N832	S	Microwave X-band Mixer; NF = 9.5 to 7.0 dB											
1N832A	S	Microwave X-band Mixer; NF = 9.5 to 7.0 dB											
1N832B	S	Microwave X-band Mixer; NF = 9.5 to 7.0 dB											
1N833	S	Microwave X-band Detector											
1N833A	S	Microwave X-band Detector											
1N835	G			GP	30	0.5	5.0M	20*	0.5				
1N836	G			PA	5.0								
1N837	S			HC		1.0	150M	0.1*	0.5				
1N837A	S			HC		1.0	150M	0.1*	0.3				
1N838	S			HC		1.0	150M	0.1*	0.5				
1N839	S			HC		1.0	150M	0.1*	0.5				
1N840	S			HC		1.0	150M	0.1*	0.3				
1N841	S			HC		1.0	150M	0.1*	0.3				

R—Rectifier, RD—Reference Diode, ZD—Zener Diode, GP—General Purpose, HC—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.

Reference Diodes

Type Number	Max Voltage Change ΔV Volts	Temperature Coefficient %/°C For Reference	Max Dynamic Impedance Z_{dT} Ohms	Power Dissipation P mW	Case
-------------	-------------------------------------	--	-------------------------------------	------------------------	------

TABLE 1

$V_Z = 6.2 \text{ V} \pm 5\%$ at $I_{ZT} = 7.5 \text{ mA}$

Test Temperatures: -55, 0, +25, +75, +100°C

1N429	0.050	0.01	20	200 ^①	53
1N821	0.096	0.01	15	†250 ^②	51
1N821A	0.096	0.01	10	†250 ^②	51
1N823	0.048	0.005	15	†250 ^②	51
1N823A	0.048	0.005	10	†250 ^②	51
1N825	0.019	0.002	15	†250 ^②	51
1N825A	0.019	0.002	10	†250 ^②	51
1N827	0.009	0.001	15	†250 ^②	51
1N827A	0.009	0.001	10	†250 ^②	51
1N829	0.005	0.0005	15	†250 ^②	51
1N829A	0.005	0.0005	10	†250 ^②	51
1N1735	0.050	0.01	20	200 ^①	46

TABLE 2

$V_Z = 6.4 \text{ V} \pm 5\%$ at $I_{ZT} = 0.5 \text{ mA}$

Test Temperatures: 0, 25, 75°C

1N4565	0.048	0.01	200	†250 ^②	51
1N4566	0.024	0.005	200	†250 ^②	51
1N4567	0.010	0.002	200	†250 ^②	51
1N4568	0.005	0.001	200	†250 ^②	51
1N4569	0.002	0.0005	200	†250 ^②	51

TABLE 3

$V_Z = 6.4 \text{ V} \pm 5\%$ at $I_{ZT} = 0.5 \text{ mA}$

Test Temperatures: -55, 0, +25, +75, +100°C

1N4565A	0.099	0.01	200	†250 ^②	51
1N4566A	0.050	0.005	200	†250 ^②	51
1N4567A	0.020	0.002	200	†250 ^②	51
1N4568A	0.010	0.001	200	†250 ^②	51
1N4569A	0.005	0.0005	200	†250 ^②	51

TABLE 4

$V_Z = 6.4 \text{ V} \pm 5\%$ at $I_{ZT} = 1.0 \text{ mA}$

Test Temperatures: 0, 25, 75°C

1N4570	0.048	0.01	100	†250 ^②	51
1N4571	0.024	0.005	100	†250 ^②	51
1N4572	0.010	0.002	100	†250 ^②	51
1N4573	0.005	0.001	100	†250 ^②	51
1N4574	0.002	0.0005	100	†250 ^②	51

TABLE 5

$V_Z = 6.4 \text{ V} \pm 5\%$ at $I_{ZT} = 1.0 \text{ mA}$

Test Temperatures: -55, 0, +25, +75, +100°C

1N4570A	0.099	0.01	100	†250 ^②	51
1N4571A	0.050	0.005	100	†250 ^②	51
1N4572A	0.020	0.002	100	†250 ^②	51
1N4573A	0.010	0.001	100	†250 ^②	51
1N4574A	0.005	0.0005	100	†250 ^②	51

Type Number	Max Voltage Change ΔV Volts	Temperature Coefficient %/°C For Reference	Max Dynamic Impedance Z_{dT} Ohms	Power Dissipation P mW	Case
-------------	-------------------------------------	--	-------------------------------------	------------------------	------

TABLE 6

$V_Z = 8.4 \text{ V} \pm 5\%$ at $I_{ZT} = 10 \text{ mA}$

Test Temperatures: -55, +25, +75, +100°C

1N1530	0.014	0.002	15	250 ^①	57
1N1530A	0.007	0.001	15	250 ^①	57
1N3154	0.130	0.01	15	250 ^②	51
1N3155	0.065	0.005	15	250 ^②	51
1N3156	0.026	0.002	15	250 ^②	51
1N3157	0.013	0.001	15	250 ^②	51

TABLE 7

$V_Z = 8.4 \text{ V} \pm 5\%$ at $I_{ZT} = 10 \text{ mA}$

Test Temperatures: -55, +25, +100, +150°C

1N3154A	0.172	0.01	15	250 ^②	51
1N3155A	0.086	0.005	15	250 ^②	51
1N3156A	0.034	0.002	15	250 ^②	51
1N3157A	0.017	0.001	15	250 ^②	51

TABLE 8

$V_Z = 8.5 \text{ V} \pm 5\%$ at $I_{ZT} = 0.5 \text{ mA}$

Test Temperatures: 0, 25, 75°C

1N4775	0.064	0.01	200	250 ^②	51
1N4776	0.032	0.005	200	250 ^②	51
1N4777	0.013	0.002	200	250 ^②	51
1N4778	0.006	0.001	200	250 ^②	51
1N4779	0.003	0.0005	200	250 ^②	51

TABLE 9

$V_Z = 8.5 \text{ V} \pm 5\%$ at $I_{ZT} = 0.5 \text{ mA}$

Test Temperatures: -55, 0, +25, +75, +100°C

1N4775A	0.132	0.01	200	250 ^②	51
1N4776A	0.066	0.005	200	250 ^②	51
1N4777A	0.026	0.002	200	250 ^②	51
1N4778A	0.013	0.001	200	250 ^②	51
1N4779A	0.007	0.0005	200	250 ^②	51

TABLE 10

$V_Z = 8.5 \text{ V} \pm 5\%$ at $I_{ZT} = 1.0 \text{ mA}$

Test Temperatures: 0, 25, 75°C

1N4780	0.064	0.01	100	250 ^②	51
1N4781	0.032	0.005	100	250 ^②	51
1N4782	0.013	0.002	100	250 ^②	51
1N4783	0.006	0.001	100	250 ^②	51
1N4784	0.003	0.0005	100	250 ^②	51

① $T_J = -65 \text{ to } +150^\circ\text{C}$

② $T_J = -65 \text{ to } +175^\circ\text{C}$

† The indicated power rating is recommended for conservative design limits in critical high reliability applications. Registered power ratings vary from 250 mW to 500 mW. All devices indicated are supplied in the 400 mW glass package.