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Manufacturers of World Class Discrete Semiconductors

1N5518, A, B, C, D
THRU
1N5546, A, B, C, D

LOW LEAKAGE, LOW NOISE ZENER DIODE

JEDEC DO-35 CASE

DESCRIPTION

The Central Semiconductor 1N5518 Series types are Silicon Avalanche Zener Diodes designed for applications requiring low noise, low leakage, low current and low impedance.

MAXIMUM RATINGS (T_A=50°C)

	SYMBOL		UNIT
Power Dissipation	P_D	400	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 TO +200	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

JEDEC Type No. (note 1)	Nominal Zener Voltage V_Z@I_{ZT} (volts)	Test Current I_{ZT} (ma)	Max. Zener Impedance Z_{ZT}@I_{ZT} (ohms) (Note 2)	Max. Reverse Leakage Current I_R (uAdc) (Note 3)	Max. Reverse Leakage Current V_R Volts	Max. Noise Density at I_Z=250uA N_D uV/√Hz (Note 4)	Max. Regulation Factor (Note 5) ΔVZ (volts)	Max. Regulation Factor (Note 5) I_{ZL} (mAdc)	Max. Regulator Current I_{ZM} (mAdc)	Reverse Surge Current I_r(Surge) (mA) (Note 6)	Maximum Temperature Coefficient (%/°C) (+25 to +125°C)
1N5518	3.3	20	26	5.0	0.9	0.5	0.90	2.0	115	1800	-.07
1N5519	3.6	20	24	3.0	0.9	0.5	0.90	2.0	105	1650	-.065
1N5520	3.9	20	22	1.0	0.9	0.5	0.85	2.0	98	1500	-.060
1N5521	4.3	20	18	3.0	1.0	0.5	0.75	2.0	88	1400	-.055 +.020
1N5522	4.7	10	22	2.0	1.5	0.5	0.60	1.0	81	1270	-.043 +.025
1N5523	5.1	5	26	2.0	2.0	0.5	0.65	0.25	75	1170	-.030 +.030
1N5524	5.6	3	30	2.0	3.0	1.0	0.30	0.25	68	1080	-.030 +.045
1N5525	6.2	1	30	1.0	4.5	1.0	0.20	0.01	61	965	+.050
1N5526	6.8	1	30	1.0	5.5	1.0	0.10	0.01	56	870	+.052
1N5527	7.5	1	35	0.5	6.0	2.0	0.05	0.01	51	810	+.058
1N5528	8.2	1	40	0.5	6.5	4.0	0.05	0.01	46	740	+.062
1N5529	9.1	1	45	0.1	7.0	4.0	0.05	0.01	42	650	+.068
1N5530	10.0	1	60	0.05	8.0	4.0	0.10	0.01	38	600	+.075
1N5531	11.0	1	80	0.05	9.0	5.0	0.20	0.01	35	540	+.075
1N5532	12.0	1	90	0.05	9.5	10	0.20	0.01	32	500	+.080
1N5533	13.0	1	90	0.01	10.5	15	0.20	0.01	29	470	+.080
1N5534	14.0	1	100	0.01	11.5	20	0.20	0.01	27	850	+.082
1N5535	15.0	1	100	0.01	12.5	20	0.20	0.01	25	800	+.082
1N5536	16.0	1	100	0.01	13.0	20	0.20	0.01	24	750	+.083
1N5537	17.0	1	100	0.01	14.0	20	0.20	0.01	22	700	+.085
1N5538	18.0	1	100	0.01	15.0	20	0.20	0.01	21	665	+.085
1N5539	19.0	1	100	0.01	16.0	20	0.20	0.01	20	630	+.086
1N5540	20.0	1	100	0.01	17.0	20	0.20	0.01	19	600	+.086
1N5541	22.0	1	100	0.01	18.0	20	0.25	0.01	17	541	+.087
1N5542	24.0	1	100	0.01	20.0	20	0.30	0.01	16	511	+.088
1N5543	25.0	1	100	0.01	21.0	20	0.35	0.01	15	481	+.090
1N5544	28.0	1	100	0.01	23.0	20	0.40	0.01	14	431	+.091
1N5545	30.0	1	100	0.01	24.0	20	0.45	0.01	13	400	+.091
1N5546	33.0	1	100	0.01	28.0	20	0.50	0.01	12	360	+.092

Note 1: Suffix denotes V_Z tolerance: none for ±20%, A for ±10%, B for ±5%, C for ±2%, D for ±1%.
Note 2: Measured with 10%, 60 Hz AC superimposed on I_{ZT}.
Note 3: Measured at V_R as shown in the table.
Note 4: Measured from 1000 to 3000 Hz.
Note 5: Difference between V_Z at I_{ZT} and I_{ZL}.
Note 6: Peak current superimposed on I_{ZT}; device will withstand a total of five surges at one minute intervals, each surge being a ½ square wave pulse of 8.0 msec. duration or an equivalent ½ sinewave with the same effective rms current.