

# 1N5913A - 1N5957A

# SILICON ZENER DIODES

**$V_Z$  : 3.3 - 240 Volts**

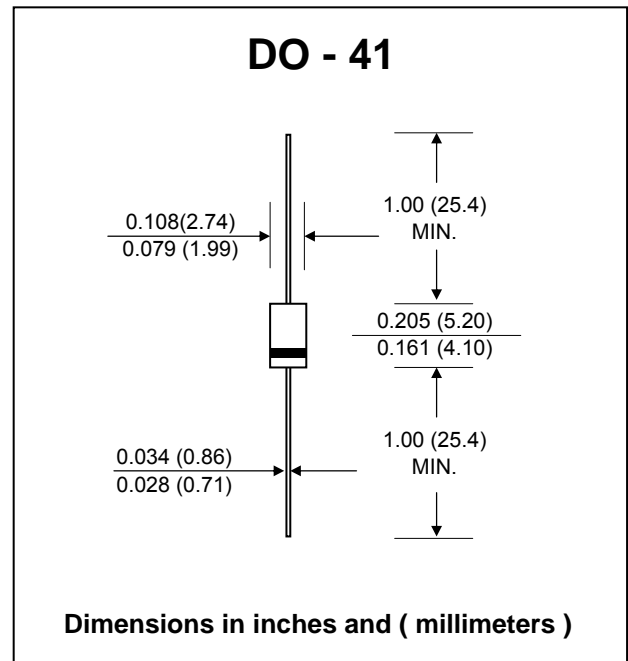
**$P_D$  : 3 Watts**

## FEATURES :

- \* Complete Voltage Range 3.3 to 200 Volts
- \* High peak reverse power dissipation
- \* High reliability
- \* Low leakage current
- \* **Pb / RoHS Free**

## MECHANICAL DATA

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.335 gram

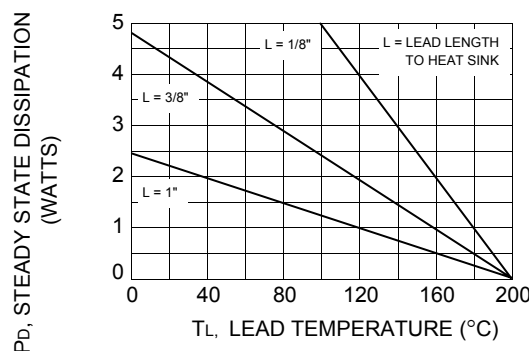


## MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
Maximum Steady state Power Dissipation @ $T_L = 75\text{ }^\circ\text{C}$ , Lead Length = 3/8"	$P_D$	3.0	W
Derate above 75 °C		24	mW/°C
Steady State Power Dissipation @ $T_L = 50\text{ }^\circ\text{C}$ , Lead Length = 3/8"	$P_D$	1.0	W
Derate above 50 °C		6.67	mW/°C
Operating and Storage Temperature Range	$T_J, T_{STG}$	- 65 to + 200	°C

**Fig. 1 POWER TEMPERATURE DERATING CURVE**



## ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

TYPE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	$V_Z @ I_{ZT}$	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R @ V_R$	$I_{ZM}$	
	(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu$ A)	(V)	(mA)
1N5913A	3.3	113.6	10	500	1.0	100	1.0	454
1N5914A	3.6	104.2	9.0	500	1.0	75	1.0	416
1N5915A	3.9	96.1	7.5	500	1.0	25	1.0	384
1N5916A	4.3	87.2	6.0	500	1.0	5.0	1.0	348
1N5917A	4.7	79.8	5.0	500	1.0	5.0	1.5	319
1N5918A	5.1	73.5	4.0	350	1.0	5.0	2.0	294
1N5919A	5.6	66.9	2.0	250	1.0	40	3.0	267
1N5920A	6.2	60.5	2.0	200	1.0	40	4.0	241
1N5921A	6.8	55.1	2.5	200	1.0	50	5.2	220
1N5922A	7.5	50.0	3.0	400	0.5	50	6.0	200
1N5923A	8.2	45.7	3.5	400	0.5	50	6.5	182
1N5924A	9.1	41.2	4.0	500	0.5	50	7.0	164
1N5925A	10	37.5	4.5	500	0.25	50	8.0	150
1N5926A	11	34.1	5.5	550	0.25	50	8.4	136
1N5927A	12	31.2	6.5	550	0.25	1.0	9.1	125
1N5928A	13	28.8	7.0	550	0.25	1.0	9.9	115
1N5929A	15	25.0	9.0	600	0.25	1.0	11.4	100
1N5930A	16	23.4	10	600	0.25	1.0	12.2	93
1N5931A	18	20.8	12	650	0.25	1.0	13.7	83
1N5932A	20	18.7	14	650	0.25	1.0	15.2	75
1N5933A	22	17.0	17.5	650	0.25	1.0	16.7	68
1N5934A	24	15.6	19	700	0.25	1.0	18.2	62
1N5935A	27	13.9	23	700	0.25	1.0	20.6	55
1N5936A	30	12.5	26	750	0.25	1.0	22.8	50
1N5937A	33	11.4	33	800	0.25	1.0	25.1	45
1N5938A	36	10.4	38	850	0.25	1.0	27.4	41
1N5939A	39	9.6	45	900	0.25	1.0	29.7	38
1N5940A	43	8.7	53	950	0.25	1.0	32.7	34
1N5941A	47	8.0	67	1000	0.25	1.0	35.8	31
1N5942A	51	7.3	70	1100	0.25	1.0	38.8	29
1N5943A	56	6.7	86	1300	0.25	1.0	42.6	26
1N5944A	62	6.0	100	1500	0.25	1.0	47.1	24
1N5945A	68	5.5	120	1700	0.25	1.0	51.7	22
1N5946A	75	5.0	140	2000	0.25	1.0	56.0	20
1N5947A	82	4.6	160	2500	0.25	1.0	62.2	18
1N5948A	91	4.1	200	3000	0.25	1.0	69.2	16
1N5949A	100	3.7	250	3100	0.25	1.0	76.0	15
1N5950A	110	3.4	300	4000	0.25	1.0	83.6	13
1N5951A	120	3.1	380	4500	0.25	1.0	91.2	12
1N5952A	130	2.9	450	5000	0.25	1.0	98.8	11
1N5953A	150	2.5	600	6000	0.25	1.0	114.0	10
1N5954A	160	2.3	700	6500	0.25	1.0	121.6	9.0
1N5955A	180	2.1	900	7000	0.25	1.0	136.8	8.0
1N5956A	200	1.9	1900	9990	0.25	1.0	152.0	7.0
1N5957A	240	1.5	1600	9000	0.25	1.0	182.4	6.0

Note : (1) Suffix "A" indicates  $\pm 10\%$  tolerance, suffix "B" indicates  $\pm 5\%$  tolerance and suffix "C" indicates  $\pm 2\%$  tolerance.