SYNSEMI SEMICONDUCTOR

1N5333A - 1N5388A

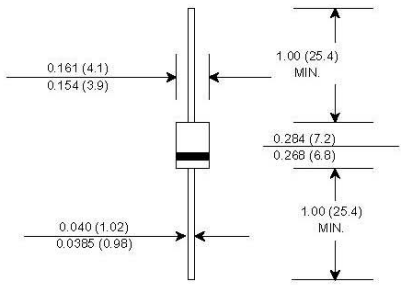
SILICON ZENER DIODES

V_Z : 3.3 - 200 Volts
P_D : 5 Watts

FEATURES :
* Complete Voltage Range 3.3 to 200 Volts
* High peak reverse power dissipation
* High reliability
* Low leakage current

MECHANICAL DATA
* Case : D2A 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 : 0.645 gram

D2A



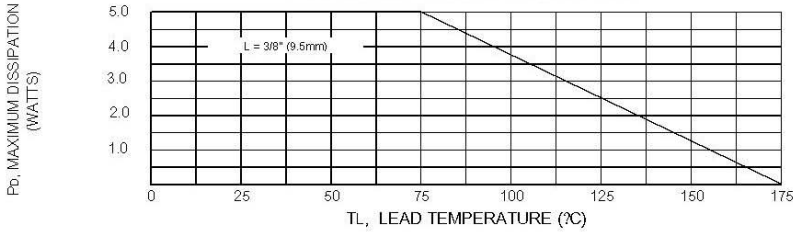
Dimensions in inches and (millimeters)

MAXIMUM RATINGS
Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at T_L = 75 °C (Note1)	P_D	5.0	Watts
Maximum Forward Voltage at I_F = 200 mA	V_F	1.2	Volts
Junction Temperature Range	T_J	- 55 to + 175	°C
Storage Temperature Range	Ts	- 55 to + 175	°C

Note :
(1) T_L = Lead temperature at 3/8 " (9.5mm) from body

Fig. 1 POWER TEMPERATURE DERATING CURVE



:om

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)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
1N5333A	3.3	380	3.0	400	1.0	300	1.0	1440
1N5334A	3.6	350	2.5	500	1.0	150	1.0	1320
1N5335A	3.9	320	2.0	500	1.0	50	1.0	1220
1N5336A	4.3	290	2.0	500	1.0	10	1.0	1100
1N5337A	4.7	260	2.0	450	1.0	5.0	1.0	1010
1N5338A	5.1	240	1.5	400	1.0	1.0	1.0	930
1N5339A	5.6	220	1.0	400	1.0	1.0	2.0	856
1N5340A	6.0	200	1.0	300	1.0	1.0	3.0	790
1N5341A	6.2	200	1.0	200	1.0	1.0	4.0	765
1N5342A	6.8	175	1.0	200	1.0	20	4.9	700
1N5343A	7.5	175	1.5	200	1.0	20	5.4	630
1N5344A	8.2	150	1.5	200	1.0	20	5.9	580
1N5345A	8.7	150	2.0	200	1.0	20	6.3	545
1N5346A	9.1	150	2.0	150	1.0	20	6.6	520
1N5347A	10	125	2.0	125	1.0	20	7.2	475
1N5348A	11	125	2.5	125	1.0	5.0	8.0	430
1N5349A	12	100	2.5	125	1.0	2.0	8.6	395
1N5350A	13	100	2.5	100	1.0	1.0	9.4	365
1N5351A	14	100	2.5	75	1.0	1.0	10.1	340
1N5352A	15	75	2.5	75	1.0	1.0	10.8	315
1N5353A	16	75	2.5	75	1.0	1.0	11.5	295
1N5354A	17	70	2.5	75	1.0	0.5	12.2	280
1N5355A	18	65	2.5	75	1.0	0.5	13.0	265
1N5356A	19	65	3.0	75	1.0	0.5	13.7	250
1N5357A	20	65	3.0	75	1.0	0.5	14.4	237
1N5358A	22	50	3.5	75	1.0	0.5	15.8	216
1N5359A	24	50	3.5	100	1.0	0.5	17.3	198
1N5360A	25	50	4.0	110	1.0	0.5	18.0	190
1N5361A	27	50	5.0	120	1.0	0.5	19.4	176
1N5362A	28	50	6.0	130	1.0	0.5	20.1	170
1N5363A	30	40	8.0	140	1.0	0.5	21.6	158
1N5364A	33	40	10	150	1.0	0.5	23.8	144
1N5365A	36	30	11	160	1.0	0.5	25.9	132
1N5366A	39	30	14	170	1.0	0.5	28.1	122
1N5367A	43	30	20	190	1.0	0.5	31.0	110
1N5368A	47	25	25	210	1.0	0.5	33.8	100
1N5369A	51	25	27	230	1.0	0.5	36.7	93.0
1N5370A	56	20	35	280	1.0	0.5	40.3	86.0
1N5371A	60	20	40	350	1.0	0.5	43.0	79.0
1N5372A	62	20	42	400	1.0	0.5	44.6	76.0
1N5373A	68	20	44	500	1.0	0.5	49.0	70.0
1N5374A	75	20	45	620	1.0	0.5	54.0	63.0
1N5375A	82	15	65	720	1.0	0.5	59.0	58.0
1N5376A	87	15	75	760	1.0	0.5	63.0	54.5
1N5377A	91	15	75	760	1.0	0.5	65.5	52.5
1N5378A	100	12	90	800	1.0	0.5	72.0	47.5
1N5379A	110	12	125	1000	1.0	0.5	79.2	43.0
1N5380A	120	10	170	1150	1.0	0.5	86.4	39.5
1N5381A	130	10	190	1250	1.0	0.5	93.2	36.6
1N5382A	140	8.0	230	1500	1.0	0.5	101	34.0
1N5383A	150	8.0	330	1500	1.0	0.5	108	31.6
1N5384A	160	8.0	350	1650	1.0	0.5	115	29.4
1N5385A	170	8.0	380	1750	1.0	0.5	122	28.0
1N5386A	180	5.0	430	1750	1.0	0.5	130	26.4
1N5387A	190	5.0	450	1850	1.0	0.5	137	25.0
1N5388A	200	5.0	480	1850	1.0	0.5	144	23.6

Note :

(1) Suffix " A " indicates +-10.0% tolerance, suffix " B " indicates +-5.0% tolerance.