

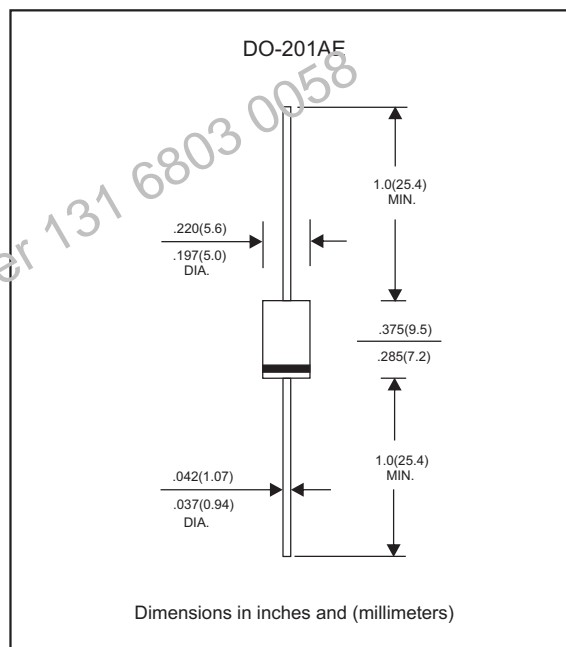
Features

- Zener Voltage From 5.1V to 200V
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- Marking : Cathode band and type number
- Halogen free available upon request by adding suffix "-H"

Mechanical Data

- Case: JEDEC DO-15.
- Terminals: Solder plated , solderable per MIL-STD-750, Method 2026.
- Standard Packaging: 52mm tape

Package outline



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	W
Maximum Forward Voltage at I _F = 1 A	V _F	1.2	V
Junction Temperature Range	T _J	- 65 to + 200	°C
Storage Temperature Range	T _s	- 65 to + 200	°C

Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted, $V_F=1.2$ Max @ $I_F=1\text{A}$ for all types)

MCC PART NUMBER	REGULATOR VOLTAGE VZ	TEST CURRENT IZ	MAXIMUM DYNAMIC IMPEDANCE ZZT	MAXIMUM REVERSE CURRENT IR	TEST VOLTAGE VR	MAXIMUM REGULATOR CURRENT IZM	MAXIMUM DYNAMIC KNEE IMPEDANCE ZZK@1.0mA	MAXIMUM SURGE CURRENT IZSM	MAXIMUM VOLTAGE REGULATION
	VOLTS	mA	OHMS	μA	VOLTS	mA	OHMS	A	VOLTS
1N5338B	5.1	240	1.5	1	1	930	400	14.4	0.39
1N5339B	5.6	220	1	1	2	865	400	13.4	0.25
1N5340B	6	200	1	1	3	790	300	12.7	0.19
1N5341B	6.2	200	1	1	3	765	200	12.4	0.1
1N5342B	6.8	175	1	10	5.2	700	200	11.5	0.15
1N5343B	7.5	175	1.5	10	5.7	630	200	10.7	0.15
1N5344B	8.2	150	1.5	10	6.2	580	200	10	0.2
1N5345B	8.7	150	2	10	6.6	545	200	9.5	0.2
1N5346B	9.1	150	2	7.5	6.9	520	150	9.2	0.22
1N5347B	10	125	2	5	7.6	475	125	8.6	0.22
1N5348B	11	125	2.5	5	8.4	430	125	8	0.25
1N5349B	12	100	2.5	2	9.1	395	125	7.5	0.25
1N5350B	13	100	2.5	1	9.9	365	100	7	0.25
1N5351B	14	100	2.5	1	10.6	340	75	6.7	0.25
1N5352B	15	75	2.5	1	11.5	315	75	6.3	0.25
1N5353B	16	75	2.5	1	12.2	295	75	6	0.3
1N5354B	17	70	2.5	0.5	12.9	280	75	5.8	0.35
1N5355B	18	65	2.5	0.5	13.7	264	75	5.5	0.4
1N5356B	19	65	3	0.5	14.4	250	75	5.3	0.4
1N5357B	20	65	3	0.5	15.2	237	75	5.1	0.4
1N5358B	22	50	3.5	0.5	16.7	216	75	4.7	0.45
1N5359B	24	50	3.5	0.5	18.2	198	100	4.4	0.55
1N5360B	25	50	4	0.5	19	190	110	4.3	0.55
1N5361B	27	50	5	0.5	20.6	176	120	4.1	0.6
1N5362B	28	50	6	0.5	21.2	170	130	3.9	0.6
1N5363B	30	40	8	0.5	22.8	158	140	3.7	0.6
1N5364B	33	40	10	0.5	25.1	144	150	3.5	0.6
1N5365B	36	30	11	0.5	27.4	132	160	3.3	0.65
1N5366B	39	30	14	0.5	29.7	122	170	3.1	0.65
1N5367B	43	30	20	0.5	32.7	110	190	2.8	0.7
1N5368B	47	25	25	0.5	35.8	100	210	2.7	0.8
1N5369B	51	25	27	0.5	38.8	93	230	2.5	0.9
1N5370B	56	20	35	0.5	42.6	86	280	2.3	1
1N5371B	60	20	40	0.5	45.5	79	350	2.2	1.2
1N5372B	62	20	42	0.5	47.1	76	400	2.1	1.35
1N5373B	68	20	44	0.5	51.7	70	500	2	1.5
1N5374B	75	20	45	0.5	56	63	620	1.9	1.6
1N5375B	82	15	65	0.5	62.2	58	720	1.8	1.8
1N5376B	87	15	75	0.5	66	54.5	760	1.7	2
1N5377B	91	15	75	0.5	69.2	52.5	760	1.6	2.2
1N5378B	100	12	90	0.5	76	47.5	800	1.5	2.3
1N5379B	110	12	125	0.5	83.6	43	1000	1.4	2.5
1N5380B	120	10	170	0.5	91.2	39.5	1150	1.3	2.5
1N5381B	130	10	190	0.5	98.8	36.6	1250	1.2	2.5
1N5382B	140	8	230	0.5	106	34	1500	1.2	2.5
1N5383B	150	8	330	0.5	114	31.6	1500	1.1	3
1N5384B	160	8	350	0.5	122	29.4	1650	1.1	3
1N5385B	170	8	380	0.5	129	28	1750	1	3
1N5386B	180	5	430	0.5	137	26.4	1750	1	4
1N5387B	190	5	450	0.5	144	25	1850	0.9	5
1N5388B	200	5	480	0.5	152	23.6	1850	0.9	5

NOTE:

TOLERANCE AND VOLTAGE DESIGNATION - The JEDEC type numbers shown indicate a tolerance of $\pm 5\%$ with guaranteed limits on only V_Z , I_R , I_F , and V_F as shown in the electrical characteristics table.

RATING AND CHARACTERISTICS CURVES

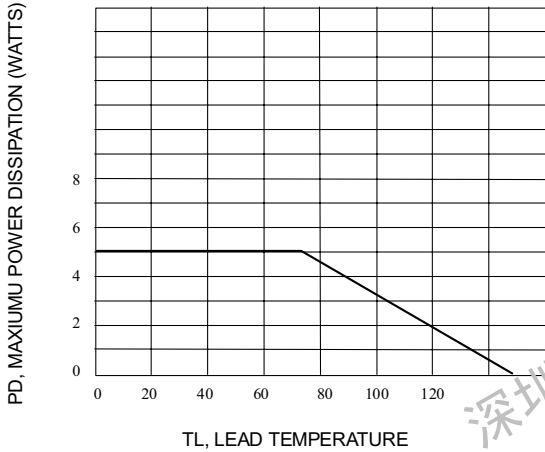


Fig. 1-POWER TEMPERATURE DERATING CURVE

TEMPERATURE COEFFICIENTS

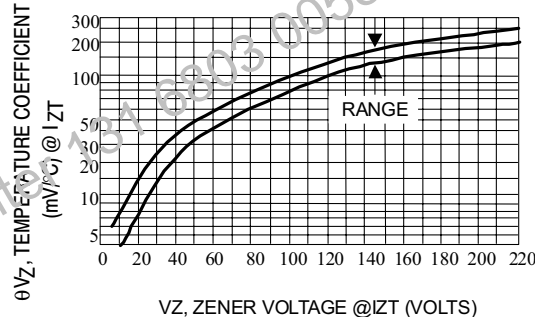


Fig. 2-TEMPERATURE COEFFICIENT-RANGE FOR UNITS 6 TO 51 VOLTS

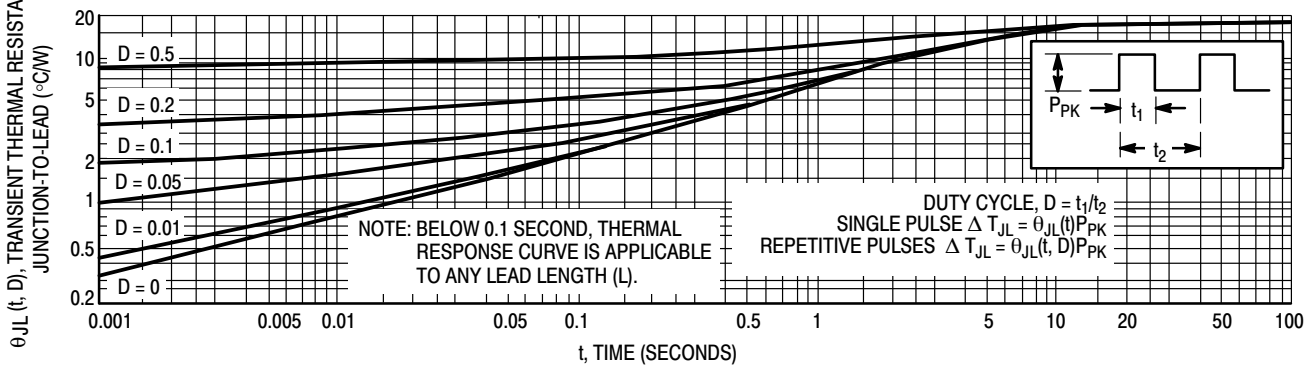


Figure 3. Typical Thermal Response
L, Lead Length = 3/8 Inch

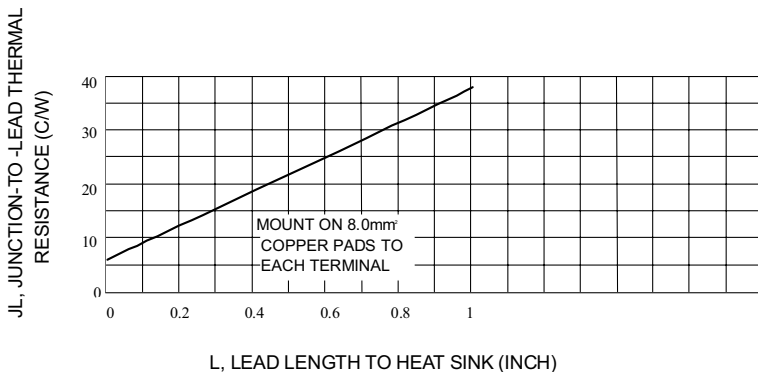


Fig. 4-TYPICAL THERMAL RESISTANCE

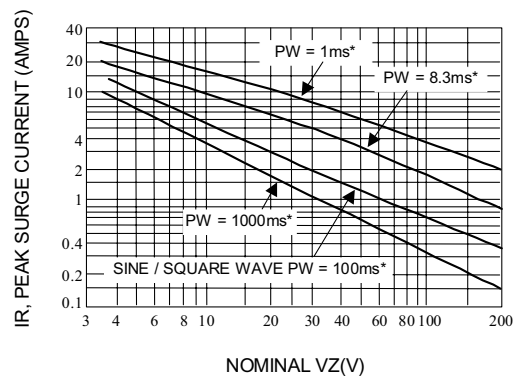


Fig. 5-MAXIMUM NON-REPETITIVE SURGE CURRENT VERSUS NOMINAL ZENER VOLTAGE (SEE NOTE 3)

RATING AND CHARACTERISTICS CURVES

ZENER VOLTAGE VERSUS ZENER CURRENT
 (FIGURES 7,8)

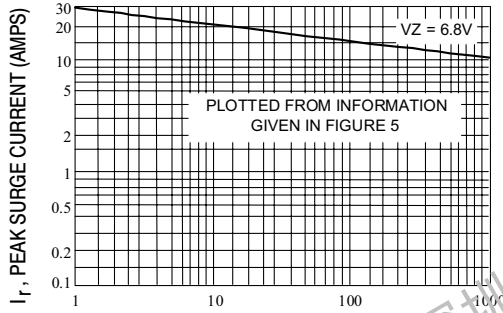


Fig. 6-PEAK SURGE CURRENT VERSUS PULSE WIDTH(SEE NOTE 3)

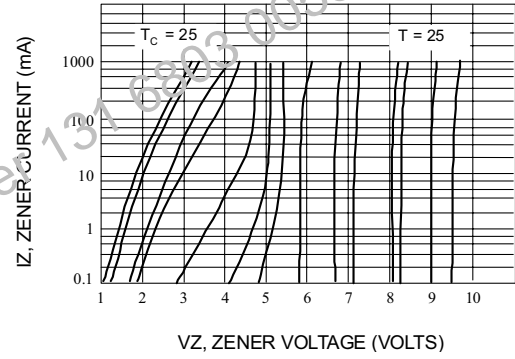


Fig. 7-ZENER VOLTAGE VERSUS ZENER CURRENT
 $V_Z = 6.8$ THRU 10 VOLTS

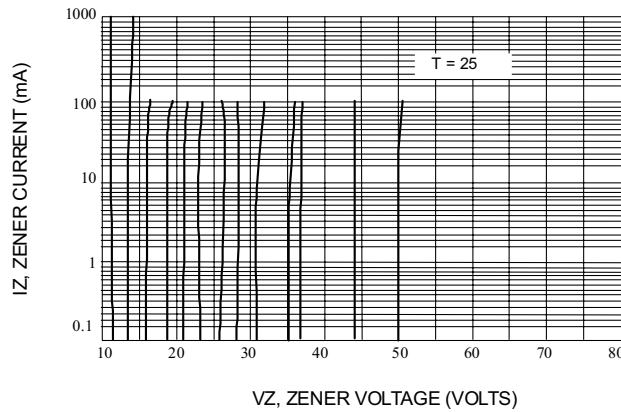


Fig. 8-ZENER VOLTAGE VERSUS ZENER CURRENT
 $V_Z = 11$ THRU 51 VOLTS