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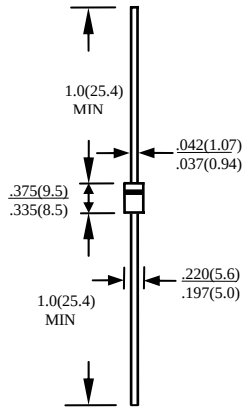
5 WATT SILICON ZENER DIODE

1N5342B-LFR THRU 1N5388B-LFR



FEATURES

- PLASTIC PACKAGE HAS UNDERWRITERS LABORATORY FLAMMABILITY CLASSIFICATION 94V-0
- LOW ZENER IMPEDANCE
- EXCELLENT CLAMPING CAPABILITY
- ROHS

MECHANICAL DATA

- CASE: MOLDED PLASTIC, DO-201AE, DIMENSIONS IN INCHES AND (MILLIMETERS)
- TERMINALS: AXIAL LEADS SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: COLOR BAND DENOTES CATHODE
- MOUNTING POSITION: ANY
- WEIGHT: 1.2 GRAM

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO + 150°C

ELECTRICAL CHARACTERISTICS (TA=25°C UNLESS OTHERWISE NOTED VF=1.2V MAX, @ IF = 1A FOR ALL TYPES)

JEDEC TYPE NO	NOMINAL ZENER VOLTS V_Z@I_{ZT} VOLTS	TEST CURRENT I_{ZT} mA	MAXIMUM ZENER IMPEDANCE		MAX. REVERSE LEAKAGE CURRENT		MAX SURGE CURRENT I_R AMPS	MAX VOLTAGE REGULATION V_ZVOLT	MAXIMUM REGULATOR CURRENT I_{ZM} mA
			Z_{ZT} @ I_{ZT} Ohms	Z_{ZK} @I_{ZK}=1mA Ohms	I_R µA	@ V_R VOLTS			
1N5342B-LFR	6.8	175	1	200	10	5.2	11.5	0.15	700
1N5343B-LFR	7.5	175	1.5	200	10	5.7	10.7	0.15	630
1N5344B-LFR	8.2	150	1.5	200	10	6.2	10	0.2	580
1N5345B-LFR	8.7	150	2	200	10	6.6	9.5	0.2	545
1N5346B-LFR	9.1	150	2	150	7.5	6.9	9.2	0.22	520
1N5347B-LFR	10	125	2	125	5	7.6	8.6	0.22	475
1N5348B-LFR	11	125	2.5	125	5	8.4	8	0.25	430
1N5349B-LFR	12	100	2.5	125	2	9.1	7.5	0.25	395
1N5350B-LFR	13	100	2.5	100	1	9.9	7	0.25	365
1N5351B-LFR	14	100	2.5	75	1	10.6	6.7	0.25	340
1N5352B-LFR	15	75	2.5	75	1	11.5	6.3	0.25	315
1N5353B-LFR	16	75	2.5	75	1	12.2	6	0.3	295
1N5354B-LFR	17	70	2.5	75	0.5	12.9	5.8	0.35	280
1N5355B-LFR	18	65	2.5	75	0.5	13.7	5.5	0.4	265
1N5356B-LFR	19	65	3	75	0.5	14.4	5.3	0.4	250
1N5357B-LFR	20	65	3	75	0.5	15.2	5.1	0.4	237
1N5358B-LFR	22	50	3.5	75	0.5	16.7	4.7	0.45	216
1N5359B-LFR	24	50	3.5	100	0.5	18.2	4.4	0.55	198
1N5360B-LFR	25	50	4	110	0.5	19	4.3	0.55	190
1N5361B-LFR	27	50	5	120	0.5	20.6	4.1	0.6	176
1N5362B-LFR	28	50	6	130	0.5	21.2	3.9	0.6	170
1N5363B-LFR	30	40	8	140	0.5	22.8	3.7	0.6	158
1N5364B-LFR	33	40	10	150	0.5	25.1	3.5	0.6	144
1N5365B-LFR	36	30	11	160	0.5	27.4	3.3	0.65	132
1N5366B-LFR	39	30	14	170	0.5	29.7	3.1	0.65	122
1N5367B-LFR	43	30	20	190	0.5	32.7	2.8	0.7	110
1N5368B-LFR	47	25	25	210	0.5	35.8	2.7	0.8	100
1N5369B-LFR	51	25	27	230	0.5	38.8	2.5	0.9	93
1N5370B-LFR	56	20	35	280	0.5	42.6	2.3	1	86
1N5371B-LFR	60	20	40	350	0.5	42.5	2.2	1.2	79
1N5372B-LFR	62	20	42	400	0.5	47.1	2.1	1.35	76
1N5373B-LFR	68	20	44	500	0.5	51.7	2	1.5	70
1N5374B-LFR	75	20	45	620	0.5	56	1.9	1.6	63
1N5375B-LFR	82	15	65	720	0.5	62.2	1.8	1.8	58
1N5376B-LFR	87	15	75	760	0.5	66	1.7	2	54.5
1N5377B-LFR	91	15	75	760	0.5	69.2	1.6	2.2	52.5
1N5378B-LFR	100	12	90	800	0.5	76	1.5	2.5	47.5
1N5379B-LFR	110	12	125	1000	0.5	83.6	1.4	2.5	43
1N5380B-LFR	120	10	170	1150	0.5	91.2	1.3	2.5	39.5
1N5381B-LFR	130	10	190	1250	0.5	98.8	1.2	2.5	36.6
1N5382B-LFR	140	8	230	1500	0.5	106	1.2	2.5	34
1N5383B-LFR	150	8	330	1500	0.5	114	1.1	3	31.6
1N5384B-LFR	160	8	350	1650	0.5	122	1.1	3	29.4
1N5385B-LFR	170	8	380	1750	0.5	129	1.0	3	28
1N5386B-LFR	180	5	430	1750	0.5	137	1.0	4	26.4
1N5387B-LFR	190	5	450	1850	0.5	144	0.9	5	25
1N5388B-LFR	200	5	480	1850	0.5	152	0.9	5	23.6

NOTE: SUFFIX “B” OR ±5%

RATING AND CHARACTERISTIC CURVES 1N5342B-LF THRU 1N5388B-LF

TEMPERATURE COEFFICIENTS

Figure 1. Temperature Coefficient-Range for Units 3 to 10 Volts

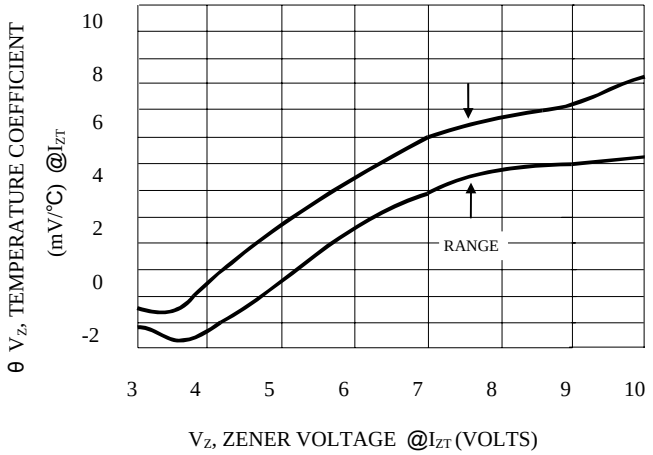


Figure 2. Power Temperature Derating Curve

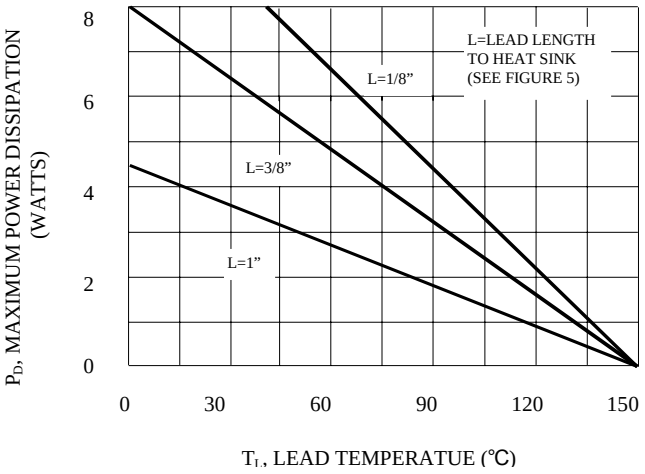


Figure 3. Typical Thermal Response L, Lead Length=3/8 Inch

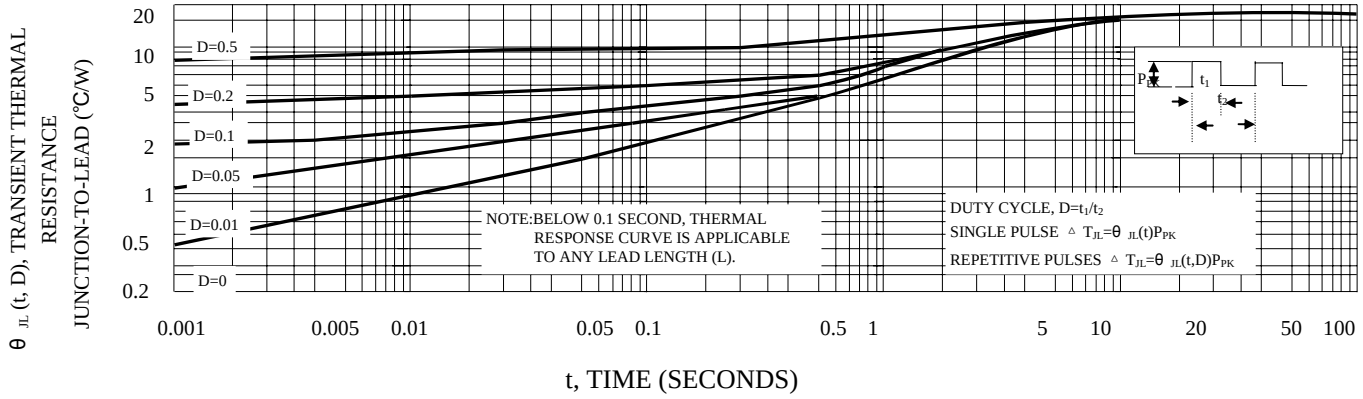


Figure 4. Temperature Coefficient-Range for Units 10 to 220 Volts

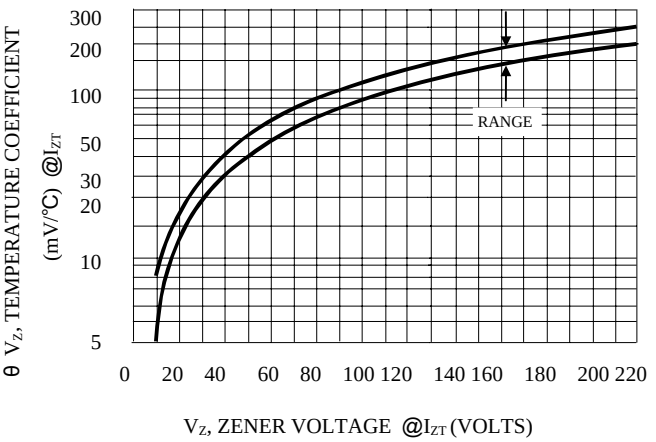
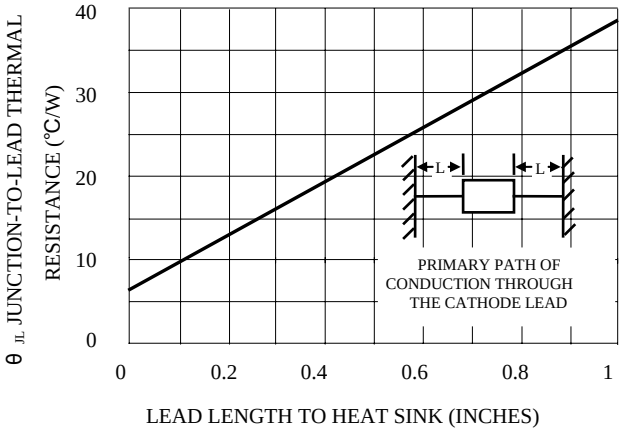


Figure 5. Typical Thermal Resistance



RATING AND CHARACTERISTIC CURVE 1N5342B-LF THRU 1N5388B-LF

Figure 6. Maximum Non-Repetitive Surge Current versus Nominal Zener Voltage

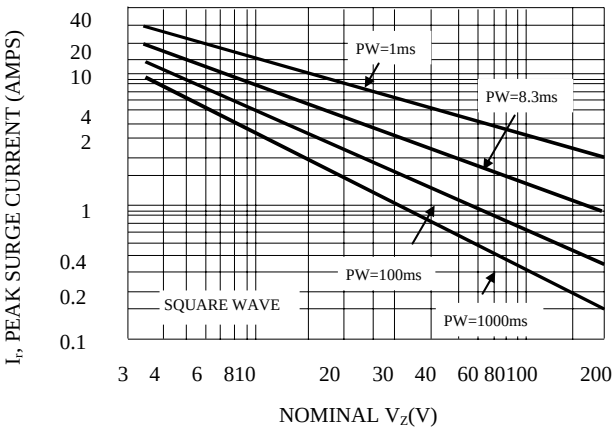


Figure 7. Peak Surge Current versus Pulse Width

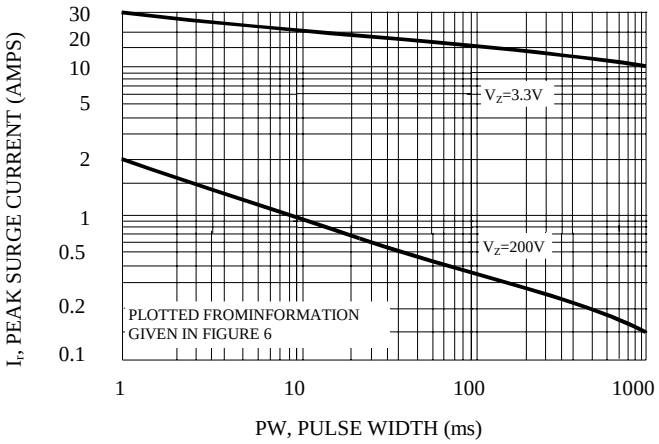


Figure 8. Zener Voltage versus Zener Current
V_Z=3.3 thru 10 Volts

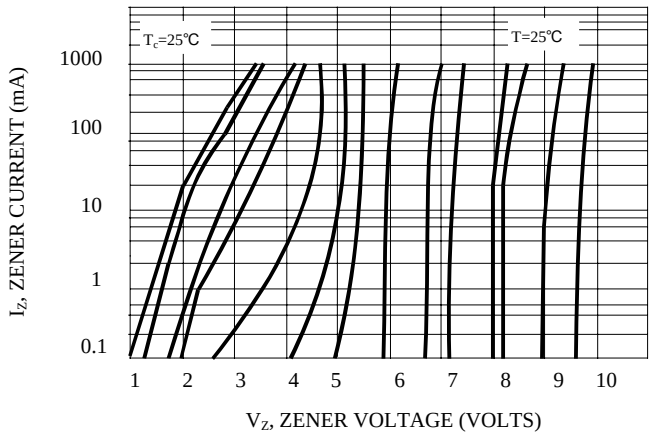


Figure 9. Zener Voltage versus Zener Current
V_Z=11 thru 75 Volts

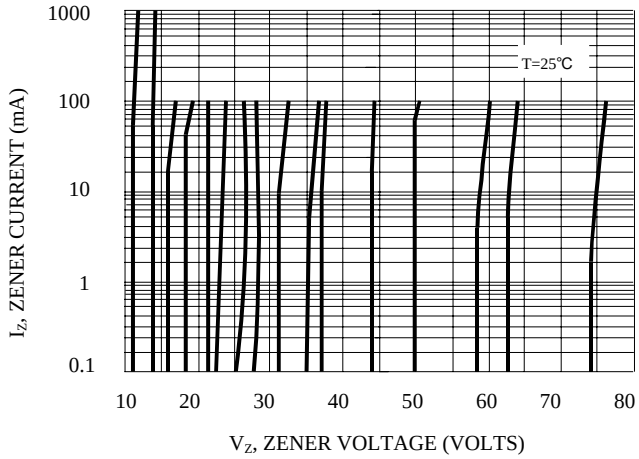


Figure 10. Zener Voltage versus Zener Current
V_Z=82 thru 200 Volts