

MINI-MELF-SMD



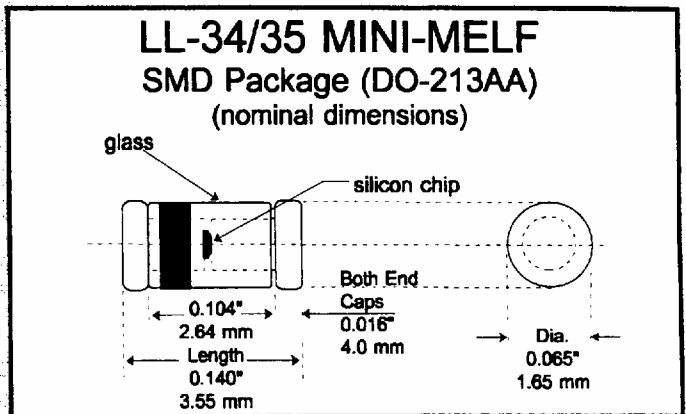
0.5 Watt Zener Diodes

Use Advantages

Full performance replacement for plastic SOT-23 zener diodes.
Occupies the same footprint as plastic SMA & SOD 123, no PC board rework.
MELF vs. SMA - possible savings are as much as 50% .
Used where high surge, space and full performance are important.
Compatible with all major automatic pick and place SM mounting equipment.
May be used on ceramic boards along with high temperature IR solder reflow.
For use in stabilizing and clipping circuits, where real surge protection is a necessity.

Features

- High surge capability
- Humidity proof glass
- Thermally matched system
- Out performs leaded parts
- No applications restrictions
- Sigma Bond™ plated contacts
- 100% guaranteed solderability
- Problem free assembly
- Six Sigma quality
- DO-35 leaded 1N glass types available
- Can be screened up to "S" level via Source Control Drawings



Absolute Maximum Ratings	Symbol	Value	Unit
Power Dissipation at end cap temperature = 75 °C	P_{tot}	0.5	Watt
Junction Temperature	T_j	200	°C
Operating and Storage Temperature Range	$T_{Op \& St}$	-65 to +200	°C

Characteristics at T = 25 °C	Symbol	Limit	Unit
Power Derating at end cap temperature = 75 °C	P_{DR}	4.0 (Max)	mW/°C
Forward Voltage at $I_F = 200$ mA	V_F	1.1 (Max)	Volts

DO-35 leaded glass package available, substitute a 1N prefix instead of the MELF LL prefix.

DETAILED SPECIFICATIONS ON REVERSE



BKC Semiconductors Inc.

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MINI-MELF-SMD

LL5225B thru
LL5281B



0.5 Watt Zener Diodes LL- 34/35 DO-213AA Detail Specifications

Type	Nominal Zener Voltage (V _Z) @ I _{Z1} Volts	Test Current I _{Z1} mA	Maximum Zener Impedance		Typical Temperature Coefficient %/°C	Maximum Reverse Leakage Current		Maximum Regulator Current (I _{ZM}) mA
			(Z _{Z1}) @ I _{Z1} Ohms	(Z _{ZK}) @ I _{ZK} = 0.25mA Ohms		(I _R) µA	@ V _R Volts	
LL5225B	3.0	20	29	1600	-0.075	50	1.0	152
LL5226B	3.3	20	28	1600	-0.070	25	1.0	138
LL5227B	3.6	20	24	1700	-0.065	15	1.0	126
LL5228B	3.9	20	23	1900	-0.060	10	1.0	115
LL5229B	4.3	20	22	2000	-0.055	5	1.0	106
LL5230B	4.7	20	19	1900	+/-0.030	5	2.0	97
LL5231B	5.1	20	17	1600	+/-0.030	5	2.0	89
LL5232B	5.6	20	11	1600	0.038	5	3.0	81
LL5233B	6.0	20	7	1600	0.038	5	3.5	76
LL5234B	6.2	20	7	1000	0.045	5	4.0	73
LL5235B	6.8	20	5	750	0.050	3	5.0	67
LL5236B	7.5	20	6	500	0.058	3	6.0	61
LL5237B	8.2	20	8	500	0.062	3	6.5	55
LL5238B	8.7	20	8	600	0.065	3	6.5	52
LL5239B	9.1	20	10	600	0.068	3	7.0	50
LL5240B	10	20	17	600	0.075	3	8.0	45
LL5241B	11	20	22	600	0.076	2	8.4	41
LL5242B	12	20	30	600	0.077	1	9.1	38
LL5243B	13	9.5	13	600	0.079	0.5	9.9	35
LL5244B	14	9.0	15	600	0.082	0.1	10	32
LL5245B	15	8.5	16	600	0.082	0.1	11	30
LL5246B	16	7.8	17	600	0.083	0.1	12	28
LL5247B	17	7.4	19	600	0.084	0.1	13	27
LL5248B	18	7.0	21	600	0.085	0.1	14	25
LL5249B	19	6.6	23	600	0.086	0.1	14	24
LL5250B	20	6.2	25	600	0.086	0.1	15	23
LL5251B	22	5.6	29	600	0.087	0.1	17	21
LL5252B	24	5.2	33	600	0.087	0.1	18	19.1
LL5253B	25	5.0	35	600	0.089	0.1	19	18.2
LL5254B	27	4.6	41	600	0.090	0.1	21	16.8
LL5255B	28	4.5	44	600	0.091	0.1	21	16.2
LL5256B	30	4.2	49	600	0.091	0.1	23	15.1
LL5257B	33	3.8	58	700	0.092	0.1	25	13.8
LL5258B	36	3.4	70	700	0.093	0.1	27	13
LL5259B	39	3.2	80	800	0.094	0.1	30	12
LL5260B	43	3.0	93	900	0.095	0.1	33	10.5
LL5261B	47	2.7	105	1000	0.095	0.1	36	10
LL5262B	51	2.5	125	1100	0.096	0.1	39	9
LL5263B	56	2.2	150	1300	0.096	0.1	43	8
LL5264B	60	2.1	170	1400	0.097	0.1	46	7.5
LL5265B	62	2.0	185	1400	0.097	0.1	47	7
LL5266B	68	1.8	230	1600	0.097	0.1	52	6.6
LL5267B	75	1.7	270	1700	0.098	0.1	56	6
LL5268B	82	1.5	330	2000	0.098	0.1	62	5.5
LL5269B	87	1.4	370	2200	0.099	0.1	68	5.2
LL5270B	91	1.4	400	2300	0.099	0.1	69	5
LL5271B	100	1.3	500	2600	0.110	0.1	76	4.5
LL5272B	110	1.1	750	3000	0.110	0.1	84	4.1
LL5273B	120	1.0	900	4000	0.110	0.1	91	3.8
LL5274B	130	0.95	1100	4500	0.110	0.1	99	3.5
LL5275B	140	0.90	1300	4500	0.110	0.1	106	3.2
LL5276B	150	0.85	1500	5000	0.110	0.1	114	3
LL5277B	160	0.80	1700	5500	0.110	0.1	122	2.8
LL5278B	170	0.74	1900	5500	0.110	0.1	129	2.6
LL5279B	180	0.68	2200	6000	0.110	0.1	137	2.5
LL5280B	190	0.66	2400	6500	0.110	0.1	144	2.4
LL5281B	200	0.65	2500	7000	0.110	0.1	152	2.3

Voltage tolerance is ± 5%. Use suffix "A" for ± 10% tolerance, and non-suffix part numbers for ± 20% tolerance.

Other tolerances, non-standard and higher zener voltages available upon request.

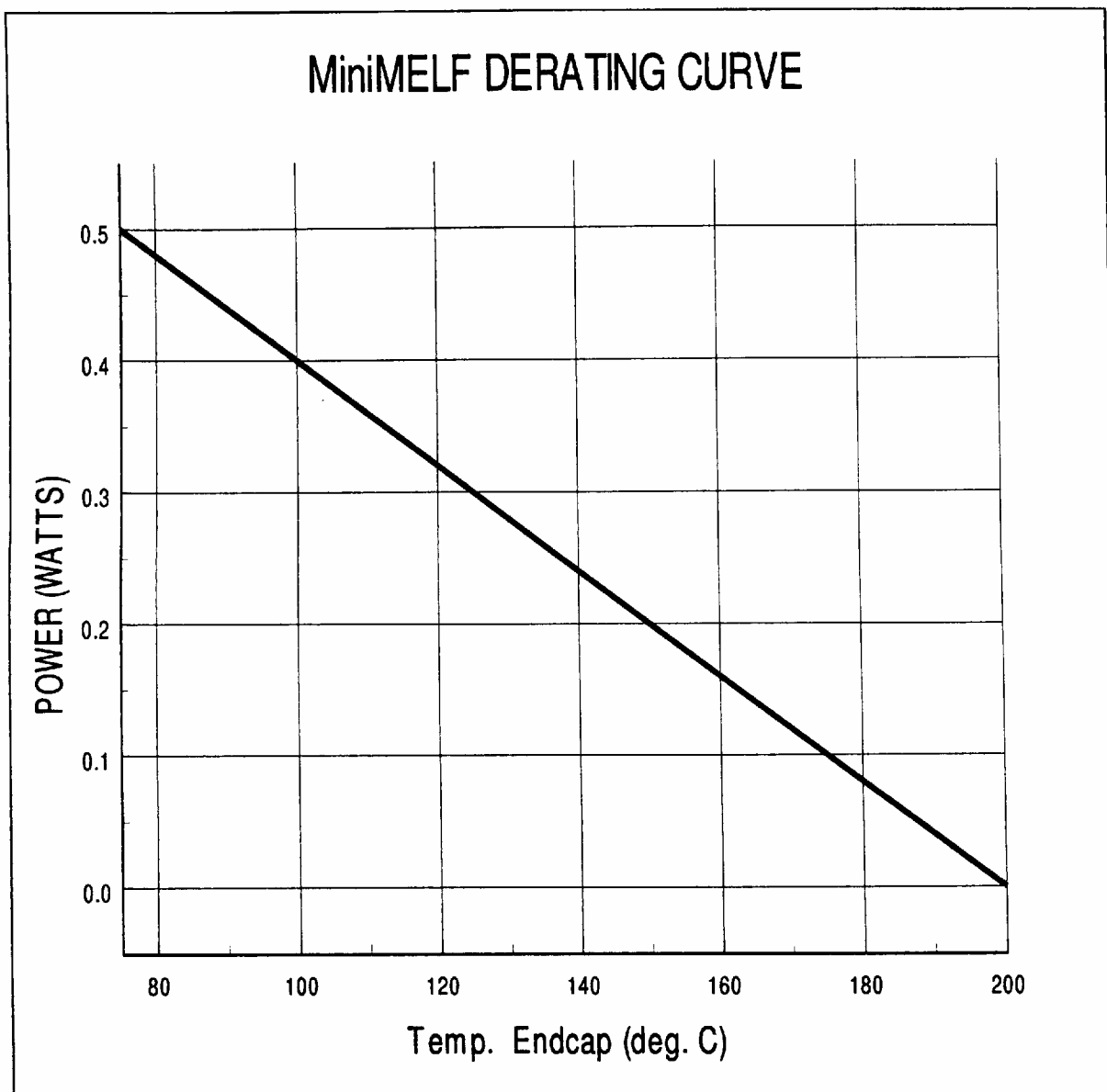
For DO-35 leaded versions, replace "LL" prefix with "1N".

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LL-34/35 MiniMELF 0.5 Watt Zeners - 1N5200B Series



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