

# MELF- 1.5 Watt



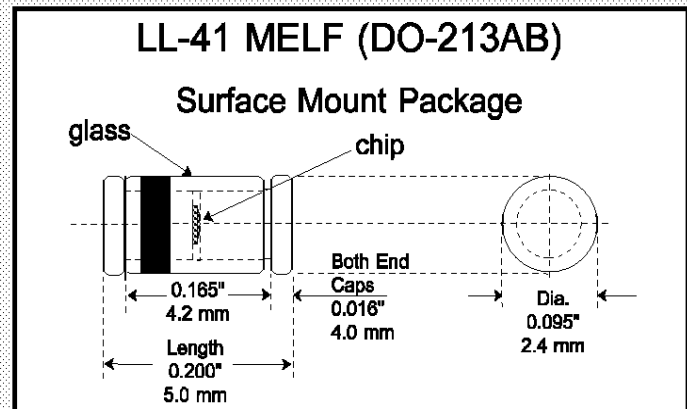
# Zener Diodes

## Use Advantages

- Used where low cost and space are important.
- Cost effective replacement for plastic SMB zener diodes.
- Occupies the same footprint as SMB, no PC board rework.
- LL-41 MELF vs. SMB - savings of up to 50% are possible.
- Compatible with all major automatic pick and place SM mounting equipment.
- May be used on ceramic boards along with high temperature IR solder reflow.

## Features

- Humidity proof glass
- Thermally matched system
- No thermal fatigue
- No applications restrictions
- Sigma Bond™ plated contacts
- 100% guaranteed solderability
- Problem free assembly
- Six Sigma quality
- DO-41 leaded 1N glass types available
- Can be screened up to "S" level via Source Control Drawings



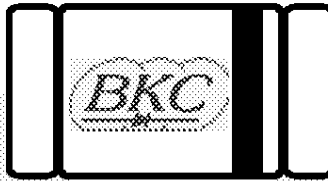
Absolute Maximum Ratings	Symbol	Value	Unit
Power Dissipation at end cap temperature, T = 50 °C	$P_{tt}$	1.5	Watts
Junction Temperature	$T_j$	200	°C
Storage Temperature Range	$T_s$	-65 to +200	°C

Characteristics at $T_{amb} = 25\text{ °C}$	Symbol	Limit	Unit
Power Derating at end cap temperature, T = 50 °C	$P_{DR}$	10.0 (Max)	mW/°C
Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	1.2 (Max)	Volts

BKC is capable of providing extended zener voltages up to and beyond 200 volts in high quantities.  
 DO-41 leaded glass package available, substitute a 1N prefix instead of the MELF LL prefix.

DETAILED SPECIFICATIONS ON REVERSE

# MELF- 1.5 Watt



# Zener Diodes

LL5922B  
thru  
LL5958B

LL- 41 DO-213AB  
Detail  
Specifications

Type	Nominal Zener Voltage (V <sub>Z</sub> ) @ I <sub>Zt</sub> Volts	Test Current I <sub>Zt</sub> mA	Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum Surge Current 8.5 ms (I <sub>ZSM</sub> ) Amps	Maximum Regulator Current (I <sub>ZM</sub> ) mA
			(Z <sub>Zt</sub> ) @ I <sub>Zt</sub> Ohms	(Z <sub>ZK</sub> ) @ I <sub>ZK</sub> Ohms	I <sub>ZK</sub> mA	(I <sub>R</sub> ) μA	@ V <sub>R</sub> Volts		
LL5922B	7.5	50	3	400	0.5	5.0	6.5	4.5	200
LL5923B	8.2	45.7	3.5	400	0.5	5.0	6.8	3.9	182
LL5924B	9.1	41.2	4.0	500	0.5	5.0	7.0	3.4	164
LL5925B	10.0	37.5	4.5	500	0.25	5.0	8.0	3.0	150
LL5926B	11.0	34.1	5.5	550	0.25	1.0	8.4	2.6	136
LL5927B	12.0	31.2	6.5	550	0.25	1.0	9.1	2.4	125
LL5928B	13	28.8	7	550	0.25	1.0	9.9	2.2	115
LL5929B	15	25.0	9	600	0.25	1.0	11.4	1.8	100
LL5930B	16	23.4	10	600	0.25	1.0	12.2	1.6	93
LL5931B	18	20.8	12	650	0.25	1.0	13.7	1.4	83
LL5932B	20	18.7	14	700	0.25	1.0	15.2	1.2	75
LL5933B	22	17	17.5	700	0.25	1.0	16.7	1.1	68
LL5934B	24	15.6	19	700	0.25	1.0	18.2	0.9	62
LL5935B	27	13.9	23	700	0.25	1.0	20.6	0.8	55
LL5936B	30	12.5	26	750	0.25	1.0	22.8	.75	50
LL5937B	33	11.4	33	800	0.25	1.0	25.1	.66	45
LL5938B	36	10.4	38	850	0.25	1.0	27.4	.60	41
LL5939B	39	9.6	45	950	0.25	1.0	29.7	.54	38
LL5940B	43	8.7	53	1000	0.25	1.0	32.7	.48	34
LL5941B	47	8.0	67	1100	0.25	1.0	35.8	.45	31
LL5942B	51	7.3	70	1300	0.25	1.0	38.8	.42	29
LL5943B	56	6.7	86	1500	0.25	1.0	42.6	.39	26
LL5944B	62	6.0	100	1700	0.25	1.0	47.1	.35	24
LL5945B	68	5.5	120	2000	0.25	1.0	51.7	.32	22
LL5946B	75	5.0	140	2500	0.25	1.0	56.0	.29	20
LL5947B	82	4.6	160	3000	0.25	1.0	62.2	.26	18
LL5948B	91	4.1	200	3100	0.25	1.0	69.2	.23	16
LL5949B	100	3.7	250	4000	0.25	1.0	76.0	.20	15
LL5950B	110	3.4	300	4500	0.25	1.0	83.6	.19	13
LL5951B	120	3.1	380	5000	0.25	1.0	91.2	.18	12
LL5952B	130	2.9	450	6000	0.25	1.0	98.8	.16	11
LL5953B	150	2.5	600	6500	0.25	1.0	114	.14	10
LL5954B	160	2.3	700	7000	0.25	1.0	121.6	.12	9.0
LL5955B	180	2.1	900	8000	0.25	1.0	136.8	.10	8.0
LL5956B	200	1.9	1200	10000	0.25	1.0	152	.08	7.0
LL5957B	220	1.7	1600	15000	0.25	1.0	167.2	.06	6.4
LL5958B	240	1.6	1900	20000	0.25	1.0	182.4	.04	5.8

Voltage tolerance is  $\pm 5\%$ . Use non-suffix part numbers for  $\pm 10\%$  tolerance.  
Other tolerances and higher zener voltages available upon request. Please consult factory.  
For DO-41 leaded glass package, replace "LL" prefix with "1N".