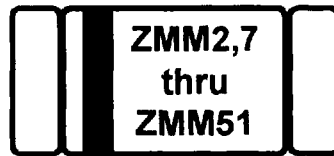


# MINI-MELF-SMD



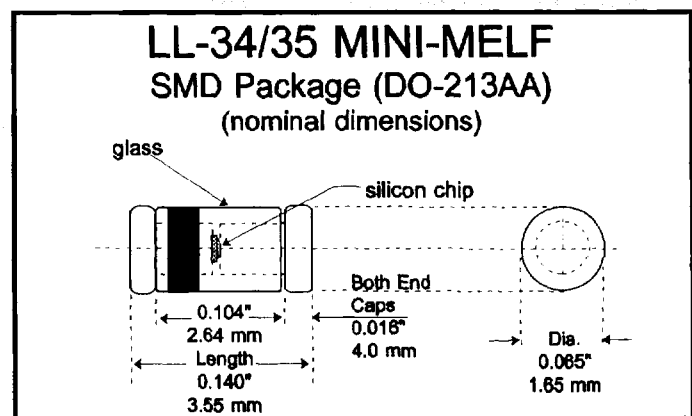
# 0.5 Watt Zener Diodes

## Use Advantages

This family is equivalent to the European PRO Electron types. The specifications reflect similar low zener test currents over voltage ranges. For use in clipping and stabilizing circuits, where real protection is needed. Able to directly replace SMA and SOD-323 plastic packages on boards without redesign. Compatible with all major automatic assembly equipment. May be used on ceramic boards along with high temperature IR solder reflow.

## Features

- Six Sigma quality
- High surge capability
- Humidity proof glass
- Metallurgically bonded
- Thermally matched system
- No applications restrictions
- BKC's Sigma Bond™ plating for problem free solderability
- DO-35 leaded glass types available



Absolute Maximum Ratings	Symbol	Value	Unit
Power Dissipation at $T_{End\ Cap} = 25\ ^\circ C$	$P_{tot}$	0.5	Watt
Junction Temperature	$T_j$	175	$^\circ C$
Operating and Storage Temperature Range	$T_s$	-55 to +175	$^\circ C$

Characteristics at $T = 25\ ^\circ C$	Symbol	Limit	Unit
Power derating at $T_{End\ Cap} = 25\ ^\circ C$	$P_{DR}$	3.0 (Max)	mW/ $^\circ C$
Forward Voltage at $I_f = 100\ mA$	$V_f$	1.5 (Max)	Volts

DO-35 leaded glass package available, substitute a ZPD prefix in place of ZMM.  
 DETAILED SPECIFICATIONS ON REVERSE



6 Lake Street  
 Lawrence, MA  
 USA 01841

\*BKCSS098\*

# MINI-MELF-SMD

## ZMM2,7 thru ZMM51



# 0.5 Watt Zener Diodes

## Detail Specifications

Type	Nominal Zener Voltage ( $V_Z$ ) @ $I_{Z1}$		Maximum Zener Impedance		Maximum Reverse Leakage Current		Maximum Zener Current ( $I_{ZM}$ ) mA	Typical Temp. Coef. of Zener Voltage %/°C
	Volts	mA	Zzt @ $I_{Z1}$ Ohms	Zzk @ 1.0mA Ohms	( $I_R$ ) $\mu$ A	@ $V_R$ Volts		
ZMM2,7	2.7	5.0	83	500	-	-	160	-0.075
ZMM3	3.0	5.0	95	500	-	-	140	-0.07
ZMM3,3	3.3	5.0	95	500	-	-	130	-0.06
ZMM3,6	3.6	5.0	95	500	-	-	120	-0.055
ZMM3,9	3.9	5.0	95	500	-	-	110	-0.045
ZMM4,3	4.3	5.0	95	500	-	-	100	-0.01
ZMM4,7	4.7	5.0	78	500	-	-	90	+0.01
ZMM5,1	5.1	5.0	60	480	0.1	0.8	80	+0.025
ZMM5,6	5.6	5.0	40	400	0.1	1.0	70	+0.035
ZMM6,2	6.2	5.0	10	200	0.1	2.0	64	+0.04
ZMM6,8	6.8	5.0	8.0	150	0.1	3.0	58	+0.044
ZMM7,5	7.5	5.0	7.0	50	0.1	5.0	53	+0.051
ZMM8,2	8.2	5.0	7.0	50	0.1	6.0	47	+0.055
ZMM9,1	9.1	5.0	10	50	0.1	7.0	43	+0.061
ZMM10	10	5.0	15	70	0.1	7.5	40	+0.065
ZMM11	11	5.0	20	70	0.1	8.5	36	+0.068
ZMM12	12	5.0	20	90	0.1	9.0	32	+0.07
ZMM13	13	5.0	25	110	0.1	10	29	+0.075
ZMM15	15	5.0	30	110	0.1	11	27	+0.079
ZMM16	16	5.0	40	170	0.1	12	24	+0.080
ZMM18	18	5.0	50	170	0.1	14	21	+0.083
ZMM20	20	5.0	50	220	0.1	15	20	+0.085
ZMM22	22	5.0	55	220	0.1	17	18	+0.087
ZMM24	24	5.0	80	220	0.1	18	16	+0.090
ZMM27	27	5.0	80	250	0.1	20	14	+0.091
ZMM30	30	5.0	80	250	0.1	22.5	13	+0.093
ZMM33	33	5.0	80	250	0.1	25	12	+0.094
ZMM36	36	5.0	90	250	0.1	27	11	+0.094
ZMM39	39	2.0	90	300	0.1	29	10	+0.095
ZMM43	43	2.0	100	700	0.1	32	9.2	+0.095
ZMM47	47	2.0	100	750	0.1	35	8.5	+0.096
ZMM51	51	2.0	100	750	0.1	38	7.8	+0.096

Voltage tolerance is  $\pm 5\%$ . For other tolerances and other zener voltages, consult factory.

For a DO-35 leaded Glass package, replace the "ZMM" prefix with "ZPD".



6 Lake Street  
Lawrence, MA  
USA 01841