

™

MLL746 THRU MLL759

0.5W Silicon Planar Zener Diodes

Features

- Zener Voltage 3.3V to 12V
- Silicon Planar Power Zener Diodes
- Standards zener voltage tolerance is $\pm 10\%$, Add suffix "A" for $\pm 5\%$ tolerance, other tolerances are available upon request
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)

Maximum Ratings

	Symbol	Value	Units
Zener Current		See Table 1	
Power Dissipation @ $T_A=50^\circ\text{C}$	P_{tot}	500	mW
Junction Temperature	T_J	200	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 to 200	$^\circ\text{C}$

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

Electrical Characteristics @ 25°C Unless Otherwise Specified

	Symbol	Maximum	Unit
Thermal resistance		300	$^\circ\text{C/W}$
Forward Voltage @ $I_F=200\text{mA}$	V_F	1.5	V

NOTE:

- 1) Valid provided that a distance of 8mm from case are kept at ambient temperature
- 2) Power derating: 4.0mW/ $^\circ\text{C}$ above 50°C

MiniMELF

DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.134	.142	3.40	3.60	
B	.008	.016	.20	.40	
C	.055	.059	1.40	1.50	∅

SUGGESTED SOLDER PAD LAYOUT

MLL746 thru MLL759

MCC PART NUMBER	NORMAL ZENER VOLTAGE $V_z @ I_{zt}$	TEST CURRENT I_{zt}	MAXIMUM ZENER IMPEDANCE $Z_{zt} @ I_{zt}$	MAXIMUM REVERSE LEAKAGE CURRENT $I_r @ V_r=1V$		MAXIMUM ZENER CURRENT I_{zm}	TYPICAL TEMP. COEFFICIENT
	VOLTS	mA	OHMS	$\mu A @ 25^\circ C$	$\mu A @ 125^\circ C$	mA	%/ $^\circ C$
MLL746	3.3	20	28	10	30	110	-.066
MLL747	3.6	20	24	10	30	100	-.058
MLL748	3.9	20	23	10	30	95	-.046
MLL749	4.3	20	22	2	30	85	-.033
MLL750	4.7	20	19	2	30	75	-.015
MLL751	5.1	20	17	1	20	70	± 0.10
MLL752	5.6	20	11	1	20	65	+0.030
MLL753	6.2	20	7.0	0.1	20	60	+0.049
MLL754	6.8	20	5.0	0.1	20	55	+0.053
MLL755	7.5	20	6.0	0.1	20	50	+0.057
MLL756	8.2	20	8.0	0.1	20	45	+0.060
MLL757	9.1	20	10	0.1	20	40	+0.061
MLL758	10	20	17	0.1	20	35	+0.062
MLL759	12	20	30	0.1	20	30	+0.062

Note:

- 1) Tested with pulses $t_p = 20ms$
- 2) Valid provided that leads are kept at ambient temperature at a distance of 8mm from case.
- 3) Zener impedance derived by superimposing on I_{zT} , a 60 cps, rms ac current equal to 10% I_{zT} (2 mA ac)
- 4) Allowance has been made for the increase in V_z due to Z_z and for the increase in junction temperature as the unit approaches thermal equilibrium at the power dissipation of 400mW.

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;2.5Kpcs/Reel