Micro Commercial Components

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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 ±10%, Add suffix "A" for ±5% tolerance, other tolerances are available upon request

Maximum Ratings

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

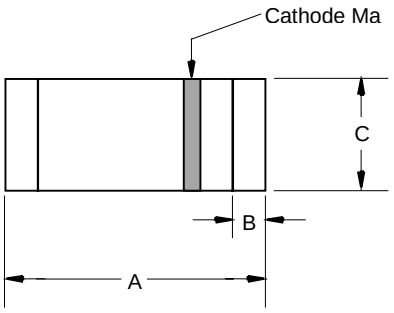
Electrical Characteristics @ 25°C Unless Otherwise Specified

	Symbol	Maximum	Unit
Thermal resistance	$R_{\theta JA}$	300	°C/W
Forward Voltage @ I_F=200mA	V_F	1.5	V

NOTE:

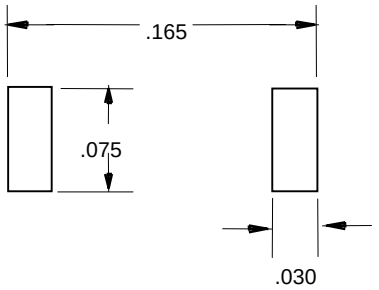
1) Valid provided that a distance of 8mm from case are kept at ambient temperature
2) Power derating: 4.0mW/°C above 50°C

MiniMELF



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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

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MCC PART NUMBER	NORMAL ZENER VOLTAGE Vz@ Izt	TEST CURRENT Izt	MAXIMUM ZENER IMPEDANCE Zzt @ Izt	MAXIMUM REVERSE LEAKAGE CURRENT Ir @ Vr=1V		MAXIMUM ZENER CURRENT I_{ZM}	TYPICAL TEMP. COEFFICIENT
	VOLTS	mA	OHMS	uA @25°C	uA @125°C	mA	%/°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	±.010
MLL752	5.6	20	11	1	20	65	+.030
MLL753	6.2	20	7.0	0.1	20	60	+.049
MLL754	6.8	20	5.0	0.1	20	55	+.053
MLL755	7.5	20	6.0	0.1	20	50	+.057
MLL756	8.2	20	8.0	0.1	20	45	+.060
MLL757	9.1	20	10	0.1	20	40	+.061
MLL758	10	20	17	0.1	20	35	+.062
MLL759	12	20	30	0.1	20	30	+.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.