

™

# DL746 THRU DL759

## 0.5W Silicon Planar Zener Diodes

### # Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates # # RoHS Compliant. See ordering information)
- Zener Voltage 3.3V to 12V and Low reverse leakage current
- 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

### Mechanical Data

- Case: Minimelf Package
- Polarity: Color band denotes cathode end
- Weight: Approx. 0.05gram

### Maximum Ratings

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

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

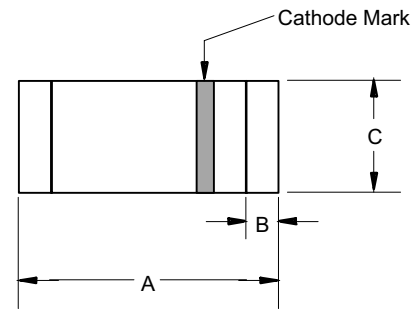
### Electrical Characteristics @ $25^\circ\text{C}$ Unless Otherwise Specified

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

#### NOTE:

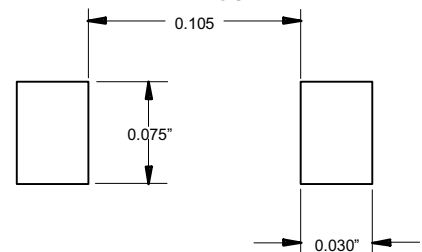
- 1) Valid provided that a distance of 8mm from case are kept at ambient temperature
- 2) Power derating:  $4.0\text{mW}/^\circ\text{C}$  above  $50^\circ\text{C}$

### Minimelf



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

#### SUGGESTED SOLDER PAD LAYOUT



# DL746 thru DL759

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	%/°C
DL746	3.3	20	28	10	30	110	-.066
DL747	3.6	20	24	10	30	100	-.058
DL748	3.9	20	23	10	30	95	-.046
DL749	4.3	20	22	2	30	85	-.033
DL750	4.7	20	19	2	30	75	-.015
DL751	5.1	20	17	1	20	70	$\pm 0.10$
DL752	5.6	20	11	1	20	65	+0.030
DL753	6.2	20	7.0	0.1	20	60	+0.049
DL754	6.8	20	5.0	0.1	20	55	+0.053
DL755	7.5	20	6.0	0.1	20	50	+0.057
DL756	8.2	20	8.0	0.1	20	45	+0.060
DL757	9.1	20	10	0.1	20	40	+0.061
DL758	10	20	17	0.1	20	35	+0.062
DL759	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

■

■

■

■

---