Micro Commercial Components

Micro Commercial Components
20736 Marilla Street Chatsworth
CA 91311
Phone: (818) 701-4933
Fax: (818) 701-4939

1N746 THRU 1N759

0.5W Silicon Planar Zener Diodes

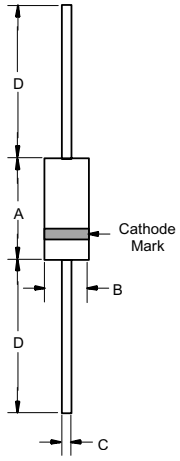
Features

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix designates Compliant. See ordering information)
- Zener Voltage 3.3V to 12V
- Silicon Planar Power Zener Diodes
- Standard zener voltage tolerance is ±10%, Add suffix " A" for ±5% tolerance, "C" for ±2% tolerance.

Mechanical Data

- Moisture Sensitivity: Level 1 per J-STD-020C
- Case: DO-35 glass case
- Marking : Cathode band and type number
- Weight: Approx. 0.13 gram

DO-35



Maximum Ratings

	Symbol	Value	Units
Zener Current		See Table 1	
Power Dissipation @ T_A=50°C (Note2,3)	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) Lead in Glass Exemption Applied, see EU Directive Annex 5.
2) Valid provided that a distance of 8mm from case are kept at ambient temperature
3) Power derating: 4.0mW/°C above 50°C

DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	---	.166	---	4.2	
B	---	.079	---	2.00	
C	---	.020	---	.52	
D	1.000	---	25.40	---	

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
1N746	3.3	20	28	10	30	110	-.066
1N747	3.6	20	24	10	30	100	-.058
1N748	3.9	20	23	10	30	95	-.046
1N749	4.3	20	22	2	30	85	-.033
1N750	4.7	20	19	2	30	75	-.015
1N751	5.1	20	17	1	20	70	±.010
1N752	5.6	20	11	1	20	65	+.030
1N753	6.2	20	7.0	0.1	20	60	+.049
1N754	6.8	20	5.0	0.1	20	55	+.053
1N755	7.5	20	6.0	0.1	20	50	+.057
1N756	8.2	20	8.0	0.1	20	45	+.060
1N757	9.1	20	10	0.1	20	40	+.061
1N758	10	20	17	0.1	20	35	+.062
1N759	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 Hz, 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.

Micro Commercial Components

Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel; 10Kpcs/Reel
(Part Number)-AP	Ammo Packing;5Kpcs/AmmoBox
(Part Number)-BP	Bulk;500pcs/Bag