

## Features

- Zener Voltage 110V to 330V
- Glass Passivated Junction
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)

## Maximum Ratings

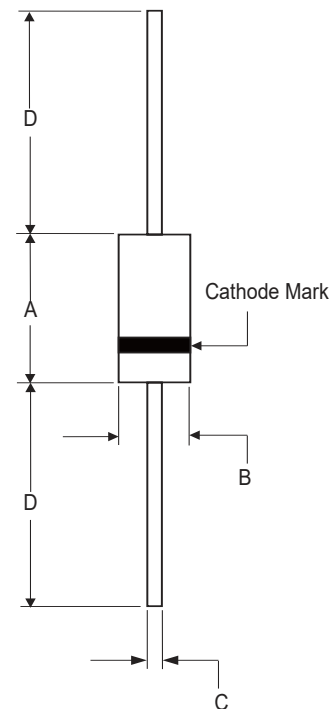
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

Parameter	Symbol	Rating	Conditions
Peak Forward Surge Current	$I_{FSM}$	10A	Note 2
Power Dissipation	$P_D$	1.0W	$T_L=50^\circ\text{C}$ , Note 3
Power Derating		6.67mW/°C	above 50°C
Maximum Forward Voltage	$V_F$	1.2V	$I_F=200\text{mA}$

- Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7a  
 2. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.  
 3. Mounted on 5.0mm<sup>2</sup> (0.013mm thick) land areas.

# 1.0 W Silicon Zener Diodes 110 to 330 Volts

## DO-41



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.160	0.205	4.10	5.20	
B	0.080	0.107	2.00	2.70	Φ
C	0.028	0.035	0.70	0.90	Φ
D	1.000	-----	25.40	-----	

**Electrical Characteristics @ 25°C Unless Otherwise Specified**

MCC Part Number	ZENER VOLTAGE @TEST CURRENT (Note 4)		MAXIMUM ZENER IMPEDANCE(Note 5)			LEAKAGE CURRENT		MARKING CODE
	$V_Z$	$I_{ZT}$	$Z_{ZT}$	$Z_{ZK}$	$I_{ZK}$	$I_R$	$V_R$	
	V	mA	$\Omega$	$\Omega$	mA	$\mu A$	V	
1EZ110D5	110	2.3	450	4000	0.25	0.1	83.6	1EZ110D5
1EZ120D5	120	2.0	550	4500	0.25	0.1	91.2	1EZ120D5
1EZ130D5	130	1.9	700	5000	0.25	0.1	98.8	1EZ130D5
1EZ140D5	140	1.8	900	5500	0.25	0.1	106.4	1EZ140D5
1EZ150D5	150	1.7	1000	6000	0.25	0.1	114.0	1EZ150D5
1EZ160D5	160	1.6	1100	6500	0.25	0.1	121.6	1EZ160D5
1EZ170D5	170	1.5	1150	6800	0.25	0.1	129.2	1EZ170D5
1EZ180D5	180	1.4	1200	7000	0.25	0.1	136.8	1EZ180D5
1EZ190D5	190	1.3	1350	7500	0.25	0.1	144.4	1EZ190D5
1EZ200D5	200	1.2	1900	9990	0.25	0.1	152.0	1EZ200D5
1EZ220D5	220	1.0	1600	8000	0.25	0.1	167.2	1EZ220D5
1EZ240D5	240	0.9	1800	8500	0.25	0.1	182.4	1EZ240D5
1EZ250D5	250	0.9	2000	9000	0.25	0.1	190.0	1EZ250D5
1EZ270D5	270	0.8	2100	9000	0.25	0.1	205.0	1EZ270D5
1EZ300D5	300	0.8	2300	9500	0.25	0.1	228.0	1EZ300D5
1EZ330D5	330	0.7	2500	9500	0.25	0.1	250.2	1EZ330D5

Note:

- Zener Voltage ( $V_Z$ ) Measurement. Guarantess the Zener Voltage When Measured at 90 Seconds While Maintaining the Lead Temperature ( $T_L$ ) at 25°C , from the Diode Body.
- Zener Impedance ( $Z_Z$ ) Derivation. The Zener Impedance is Derived from the 60 Cycle AC Voltage, Which Results When an AC Current Having an rms Value Equal to 10% of the DC Zener Current ( $I_{ZT}$  or  $I_{ZK}$ ) is Superimposed on  $I_{ZT}$  or  $I_{ZK}$ .

## Curve Characteristics

Fig. 1 - Power Derating Curve

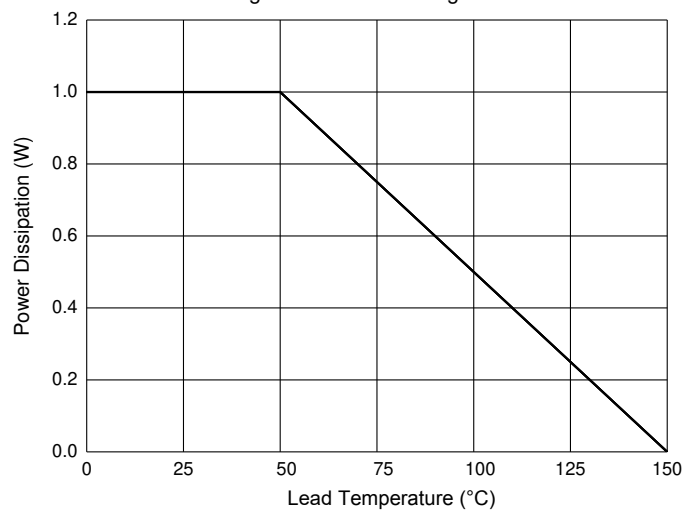
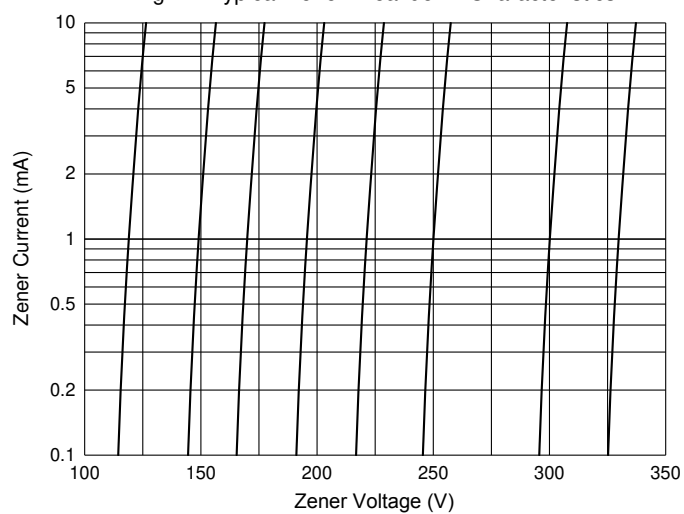


Fig. 2 - Typical Zener Breakdown Characteristics



## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 5Kpcs/Reel
(Part Number)-AP	Ammo Packing: 5Kpcs/Ammo Box
(Part Number)-BP	Bulk: 1Kpcs/Box, 50Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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