

## Features

- Excellent Clamping Capability
- Glass Passivated Junction
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

## Maximum Ratings

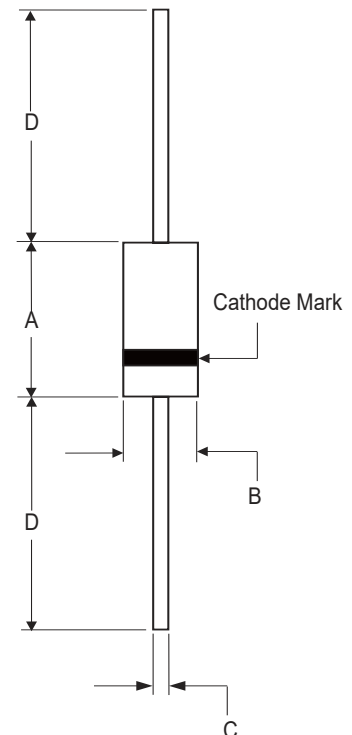
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

Parameter	Symbol	Rating	Conditions
Peak Forward Surge Current	$I_{FSM}$	15A	Note 2
Power Dissipation	$P_D$	3.0W	Note 3
Power Derating		24mW/°C	above 75°C
Maximum Forward Voltage	$V_F$	1.2V	$I_F=200mA$

- Note: 1. High Temperature Solder Exemption 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> (.013mm thick) land areas.

# 3.0 W Silicon Zener Diodes 5.1 to 75 Volts

## DO-15



### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.230	0.300	5.80	7.60	
B	0.104	0.140	2.60	3.60	
C	0.026	0.035	0.70	0.90	
D	1.000	----	25.40	----	

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

MCC Part Number (Note 4)	Nominal Zener Voltage (Note 5)	Test current	Maximum Zener Impedance (Note 6)			Leakage Current		Maximum Zener Current	MARKING CODE
	$V_Z @ I_{ZT}$		$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R$		
	V	mA	$\Omega$	$\Omega$	mA	$\mu A(\text{Max.})$	V	mA	
3EZ5.1D5	5.1	147	3.5	550	1.0	5	1.0	520	3EZ5.1D5
3EZ5.6D5	5.6	134	2.5	600	1.0	5	2.0	480	3EZ5.6D5
3EZ6.2D5	6.2	121	1.5	700	1.0	5	3.0	435	3EZ6.2D5
3EZ6.8D5	6.8	110	2.0	700	1.0	5	4.0	393	3EZ6.8D5
3EZ7.5D5	7.5	100	2.0	700	0.5	5	5.0	360	3EZ7.5D5
3EZ8.2D5	8.2	91	2.3	700	0.5	5	6.0	330	3EZ8.2D5
3EZ9.1D5	9.1	82	2.5	700	0.5	3	7.0	297	3EZ9.1D5
3EZ10D5	10	75	3.5	700	0.25	3	7.6	270	3EZ10D5
3EZ11D5	11	68	4	700	0.25	1	8.4	225	3EZ11D5
3EZ12D5	12	63	4.5	700	0.25	1	9.4	246	3EZ12D5
3EZ13D5	13	58	4.5	700	0.25	0.5	9.9	208	3EZ13D5
3EZ14D5	14	53	5	700	0.25	0.5	10.6	193	3EZ14D5
3EZ15D5	15	50	5.5	700	0.25	0.5	11.4	180	3EZ15D5
3EZ16D5	16	47	5.5	700	0.25	0.5	12.2	169	3EZ16D5
3EZ17D5	17	44	6	750	0.25	0.5	13	159	3EZ17D5
3EZ18D5	18	42	6	750	0.25	0.5	13.7	150	3EZ18D5
3EZ19D5	19	40	7	750	0.25	0.5	14.4	142	3EZ19D5
3EZ20D5	20	37	7	750	0.25	0.5	15.2	135	3EZ20D5
3EZ22D5	22	34	8	750	0.25	0.5	16.7	123	3EZ22D5
3EZ24D5	24	31	9	750	0.25	0.5	18.2	112	3EZ24D5
3EZ27D5	27	28	10	750	0.25	0.5	20.6	100	3EZ27D5
3EZ28D5	28	27	12	750	0.25	0.5	21	96	3EZ28D5
3EZ30D5	30	25	16	1000	0.25	0.5	22.5	90	3EZ30D5
3EZ33D5	33	23	20	1000	0.25	0.5	25.1	82	3EZ33D5
3EZ36D5	36	21	22	1000	0.25	0.5	27.4	75	3EZ36D5
3EZ39D5	39	19	28	1000	0.25	0.5	29.7	69	3EZ39D5
3EZ43D5	43	17	33	1500	0.25	0.5	32.7	63	3EZ43D5
3EZ47D5	47	16	38	1500	0.25	0.5	35.6	57	3EZ47D5
3EZ51D5	51	15	45	1500	0.25	0.5	38.8	53	3EZ51D5
3EZ56D5	56	13	50	2000	0.25	0.5	42.6	48	3EZ56D5
3EZ62D5	62	12	55	2000	0.25	0.5	47.1	44	3EZ62D5
3EZ68D5	68	11	70	2000	0.25	0.5	51.7	40	3EZ68D5
3EZ75D5	75	10	85	2000	0.25	0.5	56.0	36	3EZ75D5

**Notes:** 4. TOLERANCES - Suffix Indicates 5% Tolerance any Other Tolerance Will be Considered as a Special Device.

5. ZENER VOLTAGE (VZ) MEASUREMENT - Guarantees the Zener Voltage When Measured at 40 ms from the Diode Body, and an Ambient Temperature of 25 °C

6. 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 Falue 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

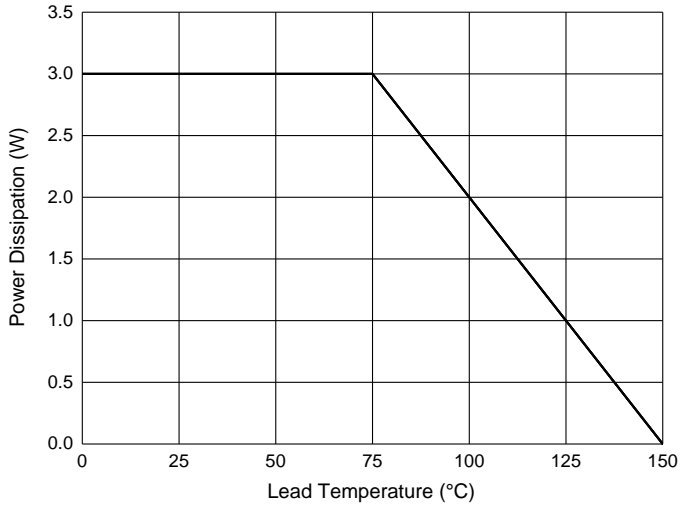


Fig. 2 - Typical Zener Breakdown Characteristics

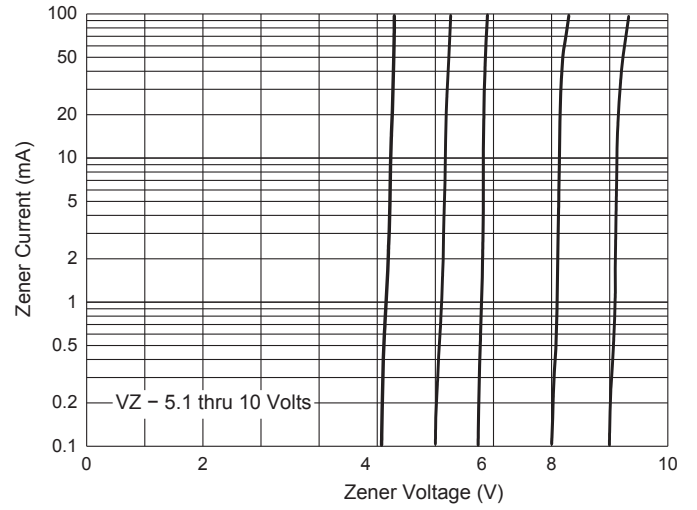
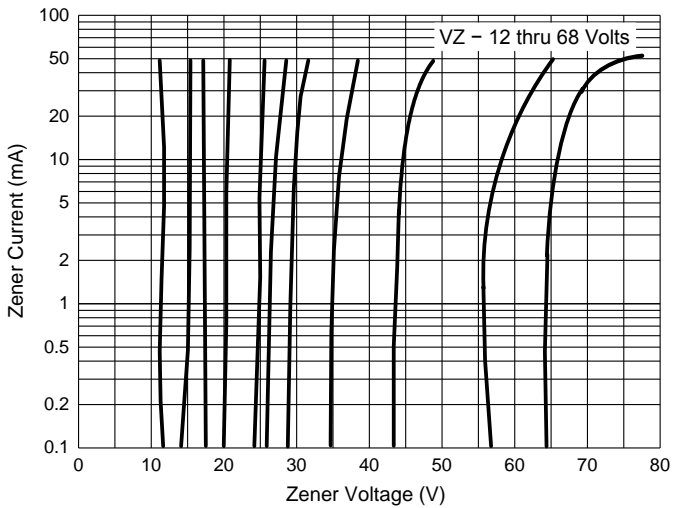


Fig. 3 - Typical Zener Breakdown Characteristics



## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 4Kpcs/Reel
(Part Number)-AP	Ammo Packing: 3Kpcs/Ammo Box
(Part Number)-BP	Bulk: 25Kpcs/Carton

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

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