

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

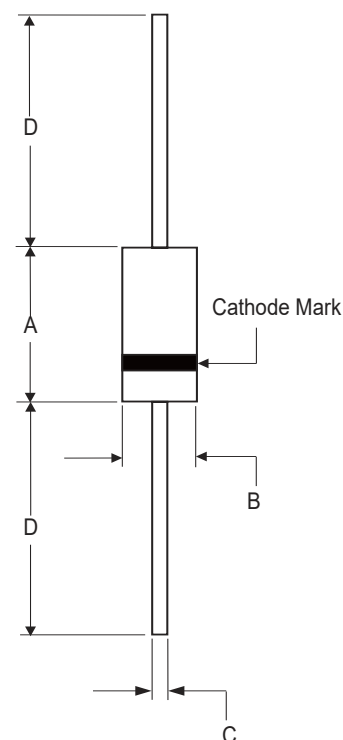
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C

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 5.0mm² (.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	Ω	Ω	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 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

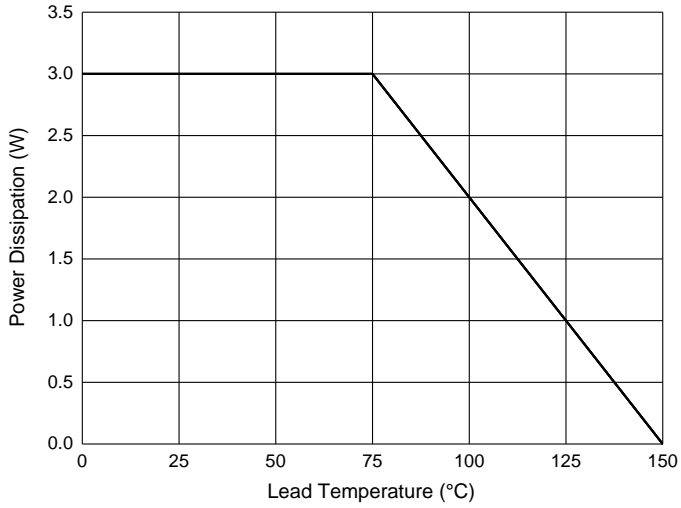


Fig. 2 - Typical Zener Breakdown Characteristics

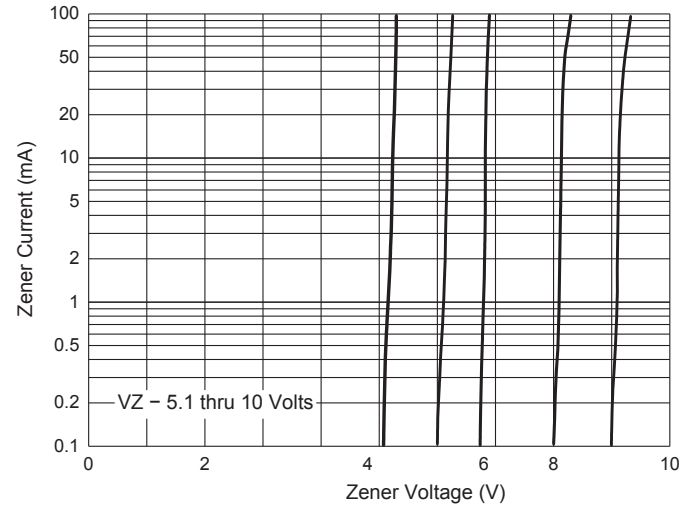
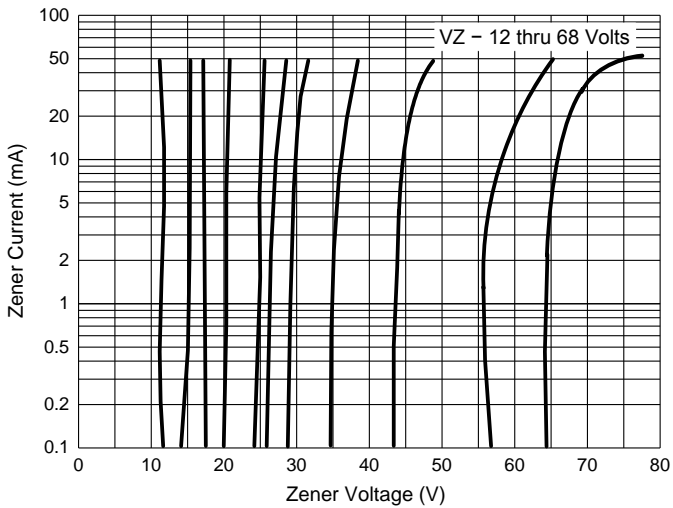


Fig. 3 - Typical Zener Breakdown Characteristics



Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel: 4Kpcs/Reel
(Part Number)-AP	Ammo Packing: 3Kpcs/Ammo Box
(Part Number)-BP	Bulk:500pcs/Box,25Kpcs/Carton

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

IMPORTANT NOTICE

Micro Commercial Components Corp. reserves the right to make changes without further notice to any product herein to make corrections, modifications , enhancements , improvements , or other changes . **Micro Commercial Components Corp .** does not assume any liability arising out of the application or use of any product described herein; neither does it convey any license under its patent rights ,nor the rights of others . The user of products in such applications shall assume all risks of such use and will agree to hold **Micro Commercial Components Corp .** and all the companies whose products are represented on our website, harmless against all damages. **Micro Commercial Components Corp.** products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.

LIFE SUPPORT

MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of Micro Commercial Components Corporation.

CUSTOMER AWARENESS

Counterfeiting of semiconductor parts is a growing problem in the industry. Micro Commercial Components (MCC) is taking strong measures to protect ourselves and our customers from the proliferation of counterfeit parts. MCC strongly encourages customers to purchase MCC parts either directly from MCC or from Authorized MCC Distributors who are listed by country on our web page cited below. Products customers buy either from MCC directly or from Authorized MCC Distributors are genuine parts, have full traceability, meet MCC's quality standards for handling and storage. **MCC will not provide any warranty coverage or other assistance for parts bought from Unauthorized Sources.** MCC is committed to combat this global problem and encourage our customers to do their part in stopping this practice by buying direct or from authorized distributors.