



# THE DATASHEET OF 3EZ15D5-TP





Micro Commercial Components



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

# 3EZ5.1D5 THRU 3EZ75D5

## Features

- Low Profile Package
- Glass Passivated Junction
- Excellent Clamping Capability
- Lead Free Finish/RoHS Compliant(Note C)("P" Suffix Designates Compliant. See Ordering Information)
- Halogen free available upon request by adding suffix "-HF"

## Mechanical Data

- WEIGHT: 0.015 ounce, 0.04 gram
- Marking : Cathode band and type number
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings @ 25°C Unless Otherwise Specified

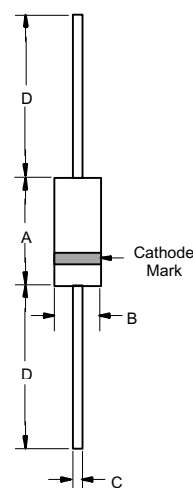
Peak Pulse Power Dissipation (Note A) Derate above 75°C	<b>P<sub>D</sub></b>	<b>3 24</b>	<b>Watts mW/°C</b>
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Note B)	<b>I<sub>FSM</sub></b>	<b>15</b>	<b>Amps</b>
Operating And Storage Temperature Range	<b>T<sub>J</sub>, T<sub>STG</sub></b>	<b>-55°C to +150°C</b>	

### NOTES:

- A. Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.
- B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.
- C. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

## 3 W Glass Passivated Junction Silicon Zener Diode 5.1-75 Volts

DO-15



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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	0.034	0.70	0.86	
D	1.000	-----	25.40	-----	

### 3EZ5.1D5 THRU 3EZ75D5

ELECTRICAL CHARACTERISTICS ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)  $V_F=1.2\text{ V max}$ ,  $I_F=200\text{ mA}$  for all types

Type No. (Note 1.)	Nominal Zener Voltage $V_Z @ I_{ZT}$ Volte (Note 2.)	Test current $I_{ZT}$ mA	Maximum Zener Impedance (Note 3)			Leakage Current		Maximum Zener Current $I_{ZM}$ m A
			$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R$	$V_R$	
			Ohms	Ohms	mA	$\mu\text{A Max}$	Volts	
3EZ5.1D5	5.1	147	3.5	550	1.0	5	1.0	520
3EZ5.6D5	5.6	134	2.5	600	1.0	5	2.0	480
3EZ6.2D5	6.2	121	1.5	700	1.0	5	3.0	435
3EZ6.8D5	6.8	110	2.0	700	1.0	5	4.0	393
3EZ7.5D5	7.5	100	2.0	700	0.5	5	5.0	360
3EZ8.2D5	8.2	91	2.3	700	0.5	5	6.0	330
3EZ9.1D5	9.1	82	2.5	700	0.5	3	7.0	297
3EZ10D5	10	75	3.5	700	0.25	3	7.6	270
3EZ11D5	11	68	4	700	0.25	1	8.4	225
3EZ12D5	12	63	4.5	700	0.25	1	9.4	246
3EZ13D5	13	58	4.5	700	0.25	0.5	9.9	208
3EZ14D5	14	53	5	700	0.25	0.5	10.6	193
3EZ15D5	15	50	5.5	700	0.25	0.5	11.4	180
3EZ16D5	16	47	5.5	700	0.25	0.5	12.2	169
3EZ17D5	17	44	6	750	0.25	0.5	13	159
3EZ18D5	18	42	6	750	0.25	0.5	13.7	150
3EZ19D5	19	40	7	750	0.25	0.5	14.4	142
3EZ20D5	20	37	7	750	0.25	0.5	15.2	135
3EZ22D5	22	34	8	750	0.25	0.5	16.7	123
3EZ24D5	24	31	9	750	0.25	0.5	18.2	112
3EZ27D5	27	28	10	750	0.25	0.5	20.6	100
3EZ28D5	28	27	12	750	0.25	0.5	21	96
3EZ30D5	30	25	16	1000	0.25	0.5	22.5	90
3EZ33D5	33	23	20	1000	0.25	0.5	25.1	82
3EZ36D5	36	21	22	1000	0.25	0.5	27.4	75
3EZ39D5	39	19	28	1000	0.25	0.5	29.7	69
3EZ43D5	43	17	33	1500	0.25	0.5	32.7	63
3EZ47D5	47	16	38	1500	0.25	0.5	35.6	57
3EZ51D5	51	15	45	1500	0.25	0.5	38.8	53
3EZ56D5	56	13	50	2000	0.25	0.5	42.6	48
3EZ62D5	62	12	55	2000	0.25	0.5	47.1	44
3EZ68D5	68	11	70	2000	0.25	0.5	51.7	40
3EZ75D5	75	10	85	2000	0.25	0.5	56.0	36

**Notes:**

1. TOLERANCES - Suffix indicates 5% tolerance any other tolerance will be considered as a special device.
2. ZENER VOLTAGE ( $V_Z$ ) MEASUREMENT - guarantees the zener voltage when measured at 40 ms from the diode body, and an ambient temperature of 25
3. 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  $I_{ZK}$  is

RATING AND CHARACTERISTICS CURVES  
3EZ5.1D5 THRU 3EZ75D5

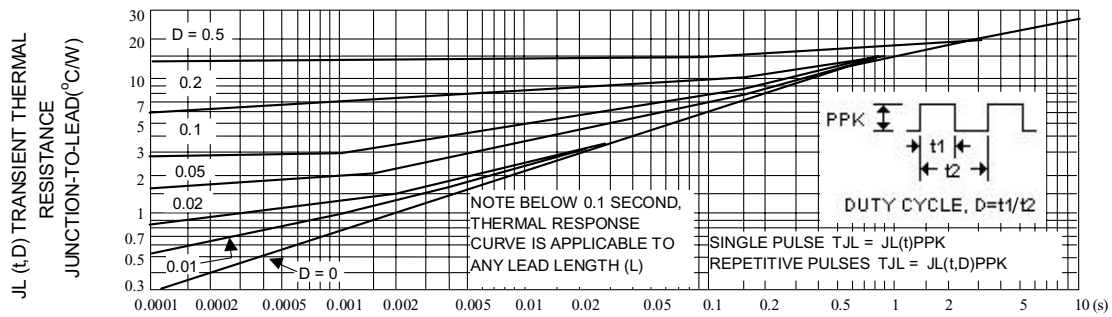


Fig. 2-TYPICAL THERMAL RESPONSE L,

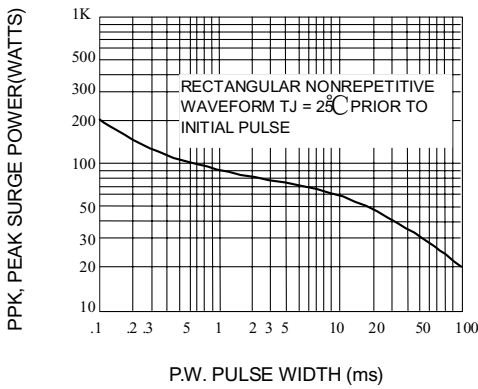


Fig. 3-MAXIMUM SURGE POWER

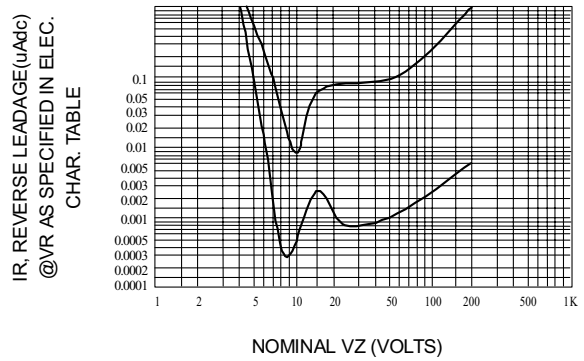


Fig. 4-TYPICAL REVERSE LEAKAGE

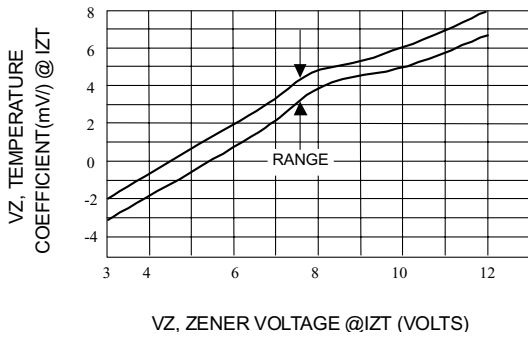


Fig. 5-UNITS TO 12 VOLTS

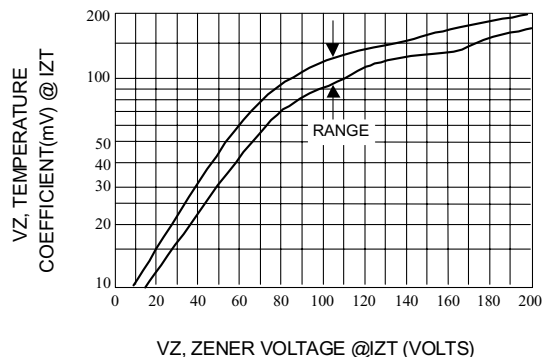


Fig. 6-UNITS 10 TO 200 VOLTS

RATING AND CHARACTERISTICS CURVES  
3EZ5.1D5 THRU 3EZ75D5

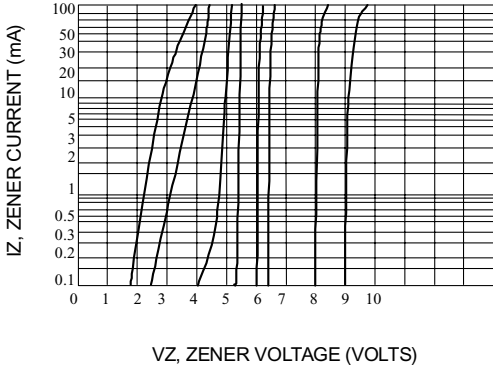


Fig. 7-V<sub>Z</sub> = 3.9 THRU 10 VOLTS

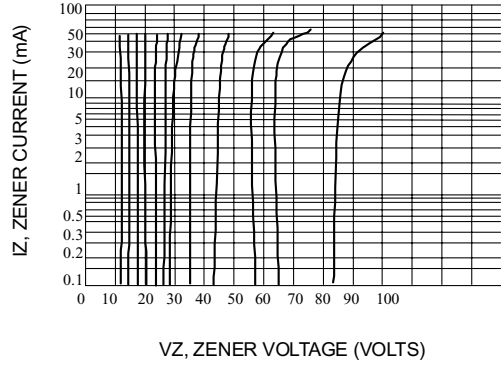


Fig. 8-V<sub>Z</sub> = 12 THRU 82 VOLTS

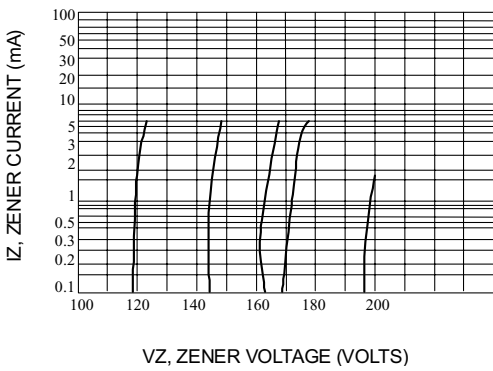


Fig. 9-V<sub>Z</sub> = 100 THRU 200 VOLTS

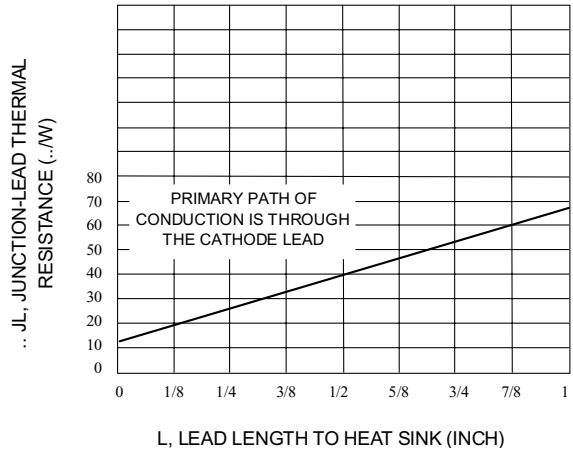


Fig. 10-TYPICAL THERMAL RESISTANCE



Micro Commercial Components

### 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

#### \*\*\*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.

#### \*\*\*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.

[www.mccsemi.com](http://www.mccsemi.com)

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [View 3EZ15D5-TP on WIN SOURCE](#)
- [Micro Commercial Co Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management