



THE DATASHEET OF DFLZ12-TP



Features

- Ideally Suited for Automatic Assembly
- Standard V_Z Tolerance is +/- 5%
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant t (Note 2) ("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
- Thermal Resistance: 110°C/W Junction to Ambient
- Thermal Resistance: 9°C/W Junction to Soldering Point

Parameter	Symbol	Rating	Conditions
Zener Current	I_{ZM}	P_d/V_z (mA)	
Power Dissipation	P_{tot}	1.0W	$T_A=50^\circ C$
Forward Voltage	V_F	1.2V	$I_F=200mA$

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

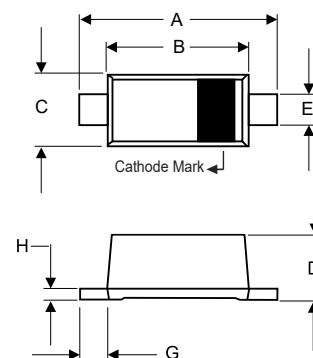
Internal Structure

Description	Simplified outline	Graphic symbol
Uni-directional		

XXXX = Marking code

1 Watt Zener Diode 5.1V - 100V Volts

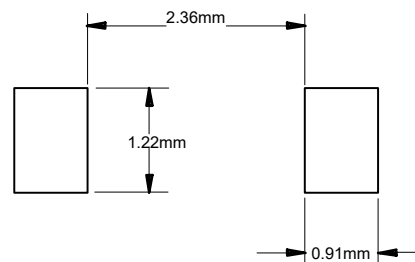
SOD-123FL



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.130	0.152	3.30	3.85	
B	0.100	0.122	2.55	3.10	
C	0.055	0.075	1.40	1.90	
D	0.035	0.053	0.90	1.35	
E	0.020	0.041	0.50	1.05	
G	0.010	----	0.25	----	
H	----	0.010	----	0.25	

SUGGESTED SOLDER PAD LAYOUT



Electrical Characteristics @ 25°C Unless Otherwise Specified

MCC Part Number	Zener Voltage ⁽³⁾			Maximum Zener Impedance	Maximum Reverse Current ⁽³⁾ I _R @ V _R		Temperature Coefficient		Marking Code	
	V _Z @ I _{ZT}				Z _{ZT} @ I _{ZT}	I _R	V _R	@ I _{ZTC} %°C		
	Min.(V)	Nom(V)	Max.(V)	mA	Ω	μA	V	Min		Max
DFLZ5V1	4.8	5.1	5.4	49	7	10	1.0	-0.08	0.02	5V1
DFLZ5V6	5.3	5.6	5.9	45	5	10	2.0	-0.04	0.04	5V6
DFLZ6V2	5.8	6.2	6.4	100	3	5	2.0	-0.01	0.06	6V2
DFLZ6V8	6.4	6.8	7.2	100	3	5	3.0	0	0.07	6V8
DFLZ7V5	7.0	7.5	7.9	100	2	5	3.0	0	0.07	7V5
DFLZ8V2	7.7	8.2	8.7	100	2	5	3.0	0.03	0.08	8V2
DFLZ9V1	8.5	9.1	9.6	50	4	5	5.0	0.03	0.08	9V1
DFLZ10	9.4	10	10.6	50	4	5	7.5	0.05	0.09	Z10
DFLZ11	10.4	11	11.6	50	7	4	8.2	0.05	0.1	Z11
DFLZ12	11.4	12	12.7	50	7	3	9.1	0.05	0.1	Z12
DFLZ13	12.4	13	14.1	50	10	2	10.0	0.05	0.1	Z13
DFLZ15	13.8	15	15.6	50	10	1	11.0	0.05	0.1	Z15
DFLZ16	15.3	16	17.1	25	15	1	12.0	0.06	0.11	Z16
DFLZ18	16.8	18	19.1	25	15	1	13.0	0.06	0.11	Z18
DFLZ20	18.8	20	21.2	25	15	1	15.0	0.06	0.11	Z20
DFLZ22	20.8	22	23.3	25	15	1	16.0	0.06	0.11	Z22
DFLZ24	22.8	24	25.6	25	15	1	18.0	0.06	0.11	Z24
DFLZ27	25.1	27	28.9	25	15	1	20.0	0.06	0.11	Z27
DFLZ30	28.0	30	32.0	25	15	1	22.0	0.06	0.11	Z30
DFLZ33	31.0	33	35.0	25	15	1	24.0	0.06	0.11	Z33
DFLZ36	34.0	36	38.0	10	40	1	27.0	0.06	0.11	Z36
DFLZ39	37.0	39	41.0	10	40	1	30.0	0.06	0.11	Z39
DFLZ43	40.8	43	45.2	6.0	70	5	32.7	-	-	Z43
DFLZ47	44.6	47	49.4	5.5	80	5	35.8	-	-	Z47
DFLZ51	48.4	51	53.6	5.0	95	5	38.8	-	-	Z51
DFLZ56	53.2	56	58.8	4.5	110	5	42.6	-	-	Z56
DFLZ62	58.9	62	65.1	4.0	125	5	47.1	-	-	Z62
DFLZ68	64.6	68	71.4	3.7	150	5	51.7	-	-	Z68
DFLZ75	71.2	75	78.8	3.3	175	5	56.0	-	-	Z75
DFLZ82	77.9	82	86.1	3.0	200	5	62.2	-	-	Z82
DFLZ91	86.4	91	95.6	2.8	250	5	69.2	-	-	Z91
DFLZ100	95.0	100	105.0	2.5	350	5	76.0	-	-	Z100

Note : 3. Short Duration Pulse Test Used to Minimize Self-heating Effect.

Curve Characteristics

Fig. 1 - Pulse Derating Curve

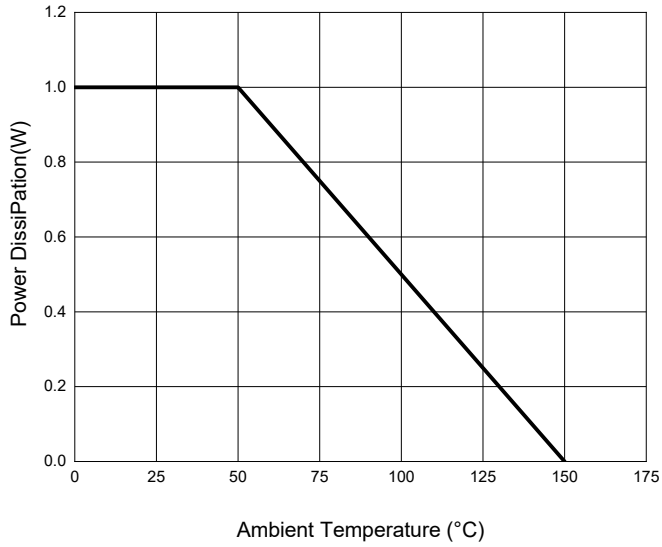


Fig. 2 - Typical Zener Breakdown Characteristics

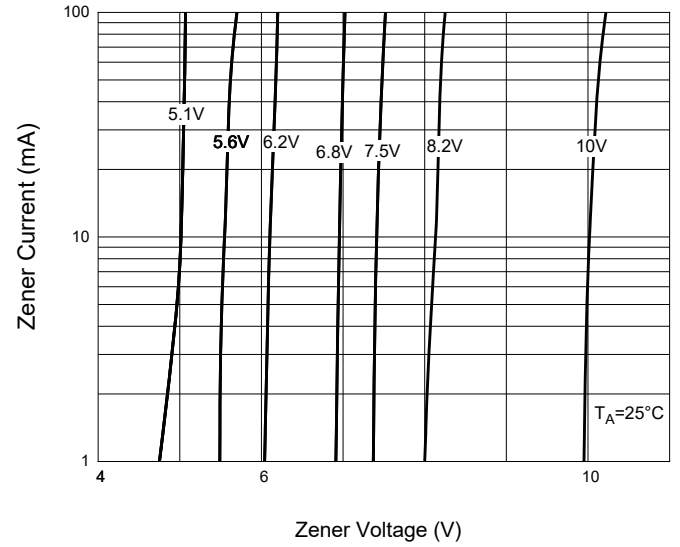


Fig. 3- Typical Zener Breakdown Characteristics

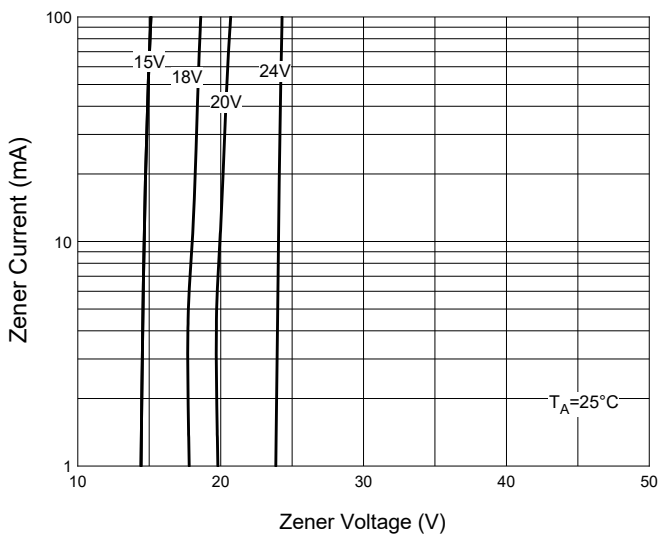


Fig. 4- Typical Zener Breakdown Characteristics

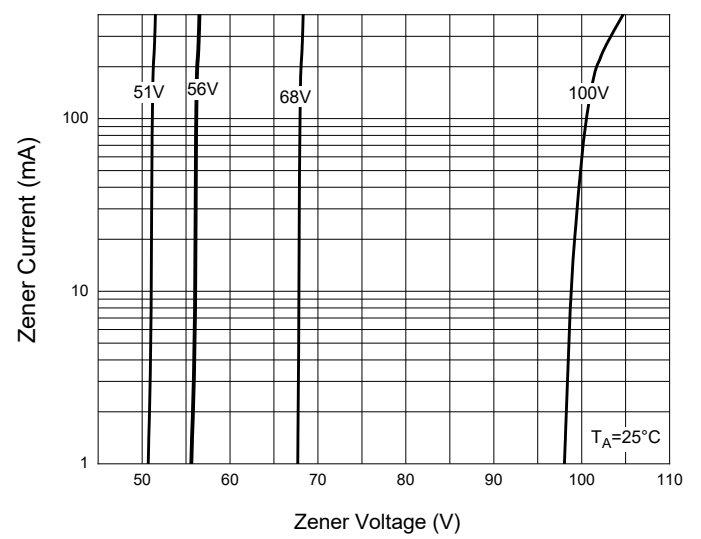
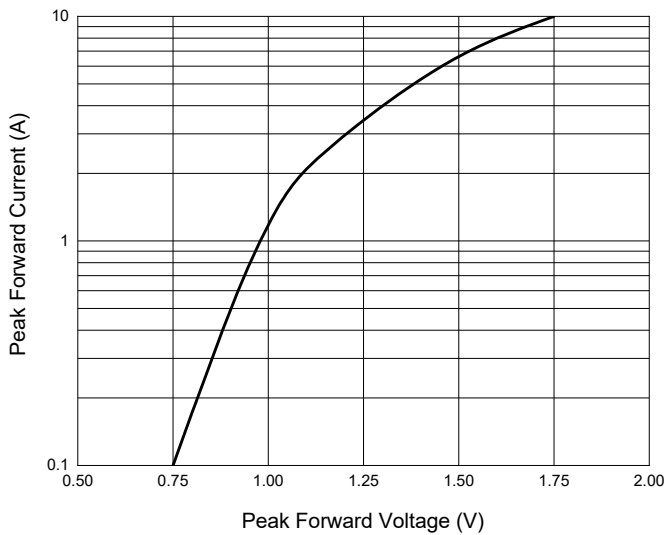


Fig. 5- Typical Forward Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:2.5Kpcs/Reel

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.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

-  [View DFLZ12-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