

# DATA SHEET

## ZENER DIODES

### GENERAL VOLTAGE REGULATION

#### MM3Z SERIES

RoHS compliant & Halogen free

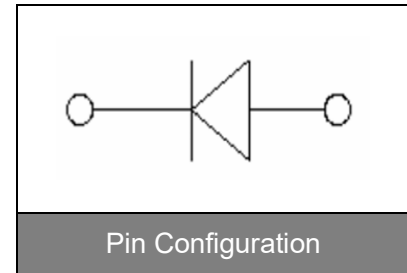
Product specification— May 14, 2026 V.1



## Zener Diodes

## Features

- Total power dissipation : max.300mW
- Zener voltage: 2.0V~75V
- Package: SOD-323
- Moisture sensitivity level 1
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102



## Application

- Linear voltage regulator
- DC regulator
- Small-signal surge protection

## Absolute Maximum Ratings (Ta = 25°C)

Parameter	Symbol	Value	Unit
Power Dissipation	$P_D$	300	mW
Forward Voltage@ $I_F=10\text{mA}$	$V_F$	0.9	V
Maximum Regulator Current	$I_{ZM}$	$P_D/V_Z$	mA
Junction Temperature	$T_j$	-55 to + 150	°C
Storage Temperature Range	$T_{stg}$	-55 to + 150	°C

## Thermal Characteristics

Parameter	Symbol	Max.	Unit
Thermal resistance, junction-to-ambient	$R_{\theta J-A}^{(1)}$	417	°C/W
Thermal resistance, junction-to-case	$R_{\theta J-C}^{(1)}$	334	°C/W

<sup>(1)</sup> Thermal resistance from junction to ambient and from junction to case mounted on P.C.B. with 8mm\*9mm copper pad areas

## Electrical Characteristics at Ta = 25°C

Type	Marking Code	$V_z$ (V)@ $I_z$			$I_z$ (mA)	$Z_z$ @ $I_z$ Max(Ω)	$I_{zk}$ (mA)	$Z_{zk}$ @ $I_{zk}$ Max(Ω)	$I_R$ @ $V_R$ Max(μA)	$V_R$ (V)
		Min.	Typ.	Max.						
MM3Z2V0	WY.	1.8	2.0	2.15	5	100	1.0	600	90	1.0
MM3Z2V4	WX.	2.28	2.4	2.56	5	100	1.0	600	50	1.0
MM3Z2V7	W1.	2.5	2.7	2.9	5	100	1.0	600	20	1.0
MM3Z3V0	W2.	2.8	3.0	3.2	5	95	1.0	600	10	1.0

## Zener Diodes

## MM3Z SERIES

Type	Marking Code	Vzt (V)@Izt			Izt	Zzt@Izt	Izk	Zzk@Izk	IR@VR	VR
		Min.	Typ.	Max.	(mA)	Max(Ω)	(mA)	Max(Ω)	Max(μA)	(V)
MM3Z3V3	W3.	3.1	3.3	3.5	5	95	1.0	600	5	1.0
MM3Z3V6	W4.	3.4	3.6	3.8	5	90	1.0	600	5	1.0
MM3Z3V9	W5.	3.7	3.9	4.1	5	90	1.0	600	3	1.0
MM3Z4V3	W6.	4.0	4.3	4.6	5	90	1.0	600	3	1.0
MM3Z4V7	W7.	4.4	4.7	5.0	5	80	1.0	500	3	2.0
MM3Z5V1	W8.	4.8	5.1	5.4	5	60	1.0	480	2	2.0
MM3Z5V6	W9.	5.2	5.6	6.0	5	40	1.0	400	1	2.0
MM3Z6V2	WA.	5.8	6.2	6.6	5	10	1.0	150	3	4.0
MM3Z6V8	WB.	6.4	6.8	7.2	5	15	1.0	80	2	4.0
MM3Z7V5	WC.	7.0	7.5	7.9	5	15	1.0	80	1	5.0
MM3Z8V2	WD.	7.7	8.2	8.7	5	15	1.0	80	0.7	5.0
MM3Z9V1	WE.	8.5	9.1	9.6	5	15	1.0	100	0.5	6.0
MM3Z10	WF.	9.4	10	10.6	5	20	1.0	150	0.2	7.0
MM3Z11	WG.	10.4	11	11.6	5	20	1.0	150	0.1	8.0
MM3Z12	WH.	11.4	12	12.7	5	25	1.0	150	0.1	8.0
MM3Z13	WI.	12.4	13	14.1	5	30	1.0	170	0.1	8.0
MM3Z15	WJ.	13.8	15	15.6	5	30	1.0	200	0.1	10.5
MM3Z16	WK.	15.3	16	17.1	5	40	1.0	200	0.1	11.2
MM3Z18	WL.	16.8	18	19.1	5	45	1.0	225	0.1	12.6
MM3Z20	WM.	18.8	20	21.2	5	55	1.0	225	0.1	14.0
MM3Z22	WN.	20.8	22	23.3	5	55	1.0	250	0.1	15.4
MM3Z24	WO.	22.8	24	25.6	5	70	1.0	250	0.1	16.8
MM3Z27	WP.	25.1	27	28.9	2	80	0.5	300	0.1	18.9
MM3Z30	WQ.	28	30	32	2	80	0.5	300	0.1	21.0
MM3Z33	WR.	31	33	35	2	80	0.5	325	0.1	23.1
MM3Z36	WS.	34	36	38	2	90	0.5	350	0.1	25.2
MM3Z39	WT.	37	39	41	2	130	0.5	350	0.1	27.3
MM3Z43	WU.	40	43	46	5	100	1.0	750	0.1	32
MM3Z47	WV.	44	47	50	5	100	1.0	750	0.1	35
MM3Z51	X1.	48	51	54	2	180	0.5	400	0.1	35.7
MM3Z56	X2.	53	56	59	2	200	1	1000	0.1	42
MM3Z62	X3.	58	62	66	2	215	0.5	450	0.1	43.4
MM3Z68	X4.	64	68	72	2	240	0.5	475	0.1	47.6
MM3Z75	X5.	70	75	79	2	255	0.5	500	0.1	52.5

## Electrical Characteristic Curves

Figure 1. Power Derating Curve

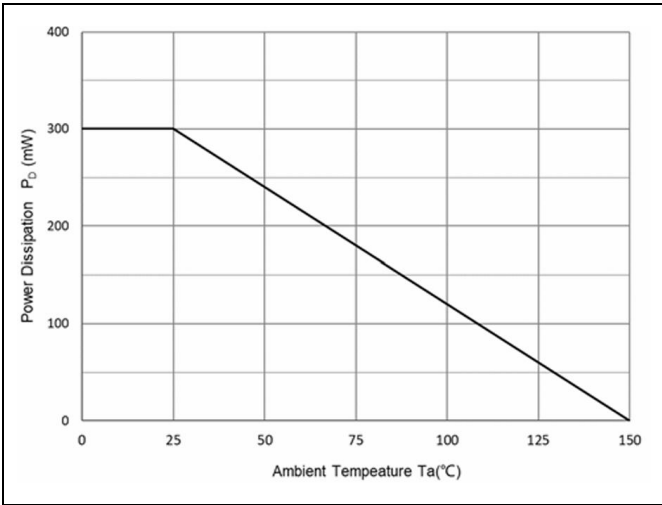


Figure 2. Zener Breakdown Characteristics

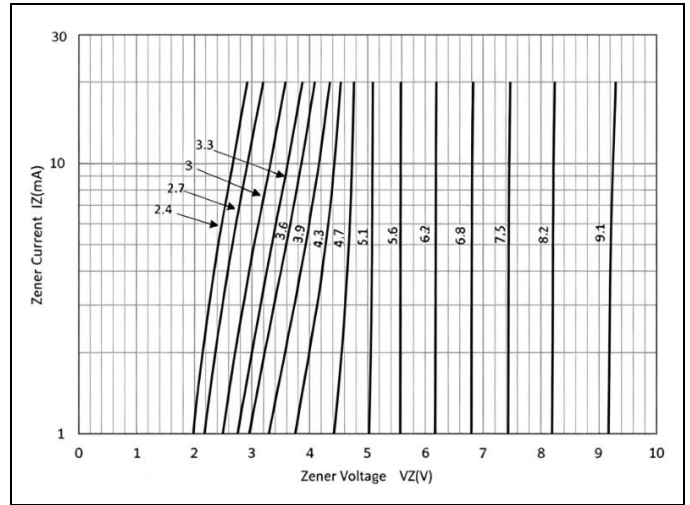


Figure 3. Zener Breakdown Characteristics

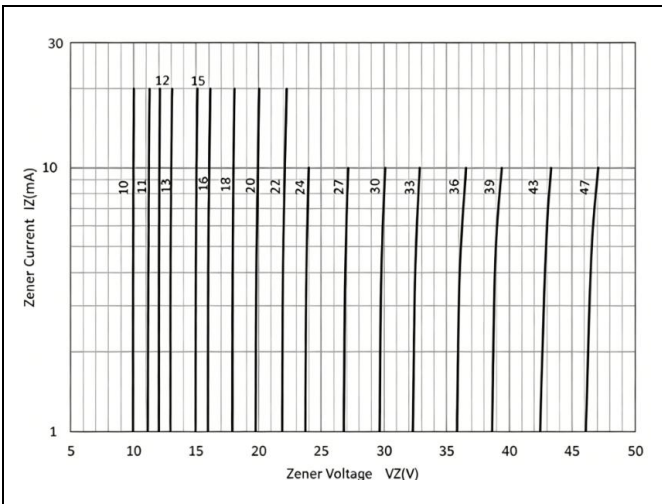
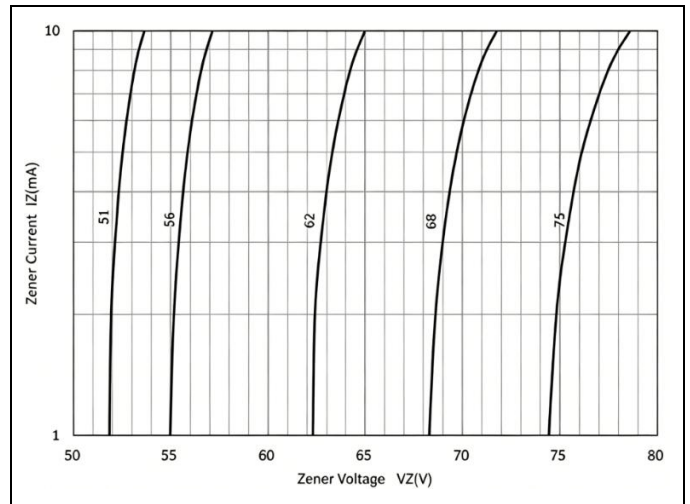


Figure 4. Zener Breakdown Characteristics



**Dimensions (SOD-323)**

Symbol	Dimension			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	-	1.00	-	0.040
A1	0.00	0.10	0.000	0.004
A2	0.80	0.90	0.031	0.036
b	0.25	0.40	0.009	0.016
c	0.08	0.15	0.003	0.006
D	1.20	1.40	0.047	0.056
E	1.60	1.80	0.062	0.071
E1	2.50	2.70	0.098	0.107
L	0.48 TYP		0.019 TYP	
L1	0.25	0.40	0.009	0.016
θ	0°	8°	0°	8°

**Packaging**

Tape	Symbol	Dimension (mm)
	W	8.00±0.30
P0	4.00±0.10	
P1	4.00±0.10	
P2	2.00±0.10	
R	Φ1.50±0.10	
R0	Φ1.05±0.05	
E	1.75±0.10	
F	3.50±0.05	
A0	1.50±0.10	
B0	2.90±0.10	
B1	1.95±0.10	
T	0.25±0.02	
T1	1.25±0.10	
Reel	D	Φ178.0±1.0
	D2	Φ13.5±0.3
	W1	9.3±1.5
	Quantity: 3000PCS	

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