TECH PUBLIC
台舟电子

MM3ZxxxT1G-TP Series
200m Watt Zener Voltage Regulators

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Features

- Low Zener Impedance
- Power Dissipation of 200mW
- High Stability and High Reliability
- Halogen free and RoHS compliant
- SOD323 surface mount package

Applications

- General voltage regulation
- Mobile & handheld systems
- Household Electric Appliances
- Industrial automation
- communication field

SOD323

Pin Configuration

Maximum Ratings& Thermal Characteristics

(Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Forward Voltage @ IF=10mA	VF	0.9	V
Power Dissipation	PD	200	mW
Thermal Resistance (Junction-to-Ambient)	RθJA	556	°C/W
Thermal Resistance (Junction-to-Case)	RθJC	417	°C/W
Junction Temperature Range	TJ	150	°C
Storage Temperature Range	TSTG	-55 ~ +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Device	Zener Voltage (Note 2)				Zener Impedance			Leakage Current		®VZ(mV/k)@ IZT		C@ VR = 0 f = 1 MHz
	VZ (Volts)			@ IZT	ZZT @ IZT	ZZK @ IZK		IR @ VR				
	Min	Nom	Max	mA	Ω	Ω	mA	μA	Volts	Min	Max	pF
MM3Z2V4T1G-TP	2.2	2.4	2.6	5	100	1000	0.5	50	1.0	−3.5	0	450
MM3Z2V7T1G-TP	2.5	2.7	2.9	5	100	1000	0.5	20	1.0	−3.5	0	450
MM3Z3V0T1G-TP	2.8	3.0	3.2	5	100	1000	0.5	10	1.0	−3.5	0	450
MM3Z3V3T1G-TP	3.1	3.3	3.5	5	95	1000	0.5	5	1.0	−3.5	0	450
MM3Z3V6T1G-TP	3.4	3.6	3.8	5	90	1000	0.5	5	1.0	−3.5	0	450
MM3Z3V9T1G-TP	3.7	3.9	4.1	5	90	1000	0.5	3	1.0	−3.5	−2.5	450
MM3Z4V3T1G-TP	4.0	4.3	4.6	5	90	1000	0.5	3	1.0	−3.5	0	450
MM3Z4V7T1G-TP	4.4	4.7	5.0	5	80	800	0.5	3	2.0	−3.5	0.2	260
MM3Z5V1T1G-TP	4.8	5.1	5.4	5	60	500	0.5	2	2.0	−2.7	1.2	225
MM3Z5V6T1G-TP	5.2	5.6	6.0	5	40	200	0.5	1	2.0	−2.0	2.5	200
MM3Z6V2T1G-TP	5.8	6.2	6.6	5	10	100	0.5	3	4.0	0.4	3.7	185
MM3Z6V8T1G-TP	6.4	6.8	7.2	5	15	160	0.5	2	4.0	1.2	4.5	155
MM3Z7V5T1G-TP	7.0	7.5	7.9	5	15	160	0.5	1	5.0	2.5	5.3	140
MM3Z8V2T1G-TP	7.7	8.2	8.7	5	15	160	0.5	0.7	5.0	3.2	6.2	135
MM3Z9V1T1G-TP	8.5	9.1	9.6	5	15	160	0.5	0.2	7.0	3.8	7.0	130
MM3Z10VT1G-TP	9.4	10	10.6	5	20	160	0.5	0.1	8.0	4.5	8.0	130
MM3Z11VT1G-TP	10.4	11	11.6	5	20	160	0.5	0.1	8.0	5.4	9.0	130
MM3Z12VT1G-TP	11.4	12	12.7	5	25	80	0.5	0.1	8.0	6.0	10	130
MM3Z13VT1G-TP	12.4	13.25	14.1	5	30	80	0.5	0.1	8.0	7.0	11	120
MM3Z15VT1G-TP	14.3	15	15.8	5	30	80	0.5	0.05	10.5	9.2	13	110
MM3Z16VT1G-TP	15.3	16.2	17.1	5	40	80	0.5	0.05	11.2	10.4	14	105
MM3Z18VT1G-TP	16.8	18	19.1	5	45	80	0.5	0.05	12.6	12.4	16	100
MM3Z20VT1G-TP	18.8	20	21.2	5	55	100	0.5	0.05	14.0	14.4	18	85
MM3Z22VT1G-TP	20.8	22	23.3	5	55	100	0.5	0.05	15.4	16.4	20	85
MM3Z24VT1G-TP	22.8	24.2	25.6	5	70	120	0.5	0.05	16.8	18.4	22	80
MM3Z27VT1G-TP	25.1	27	28.9	2	80	300	0.5	0.05	18.9	21.4	25.3	70
MM3Z30VT1G-TP	28	30	32	2	80	300	0.5	0.05	21.0	24.4	29.4	70

Electrical Characteristics (TA=25°C unless otherwise specified)

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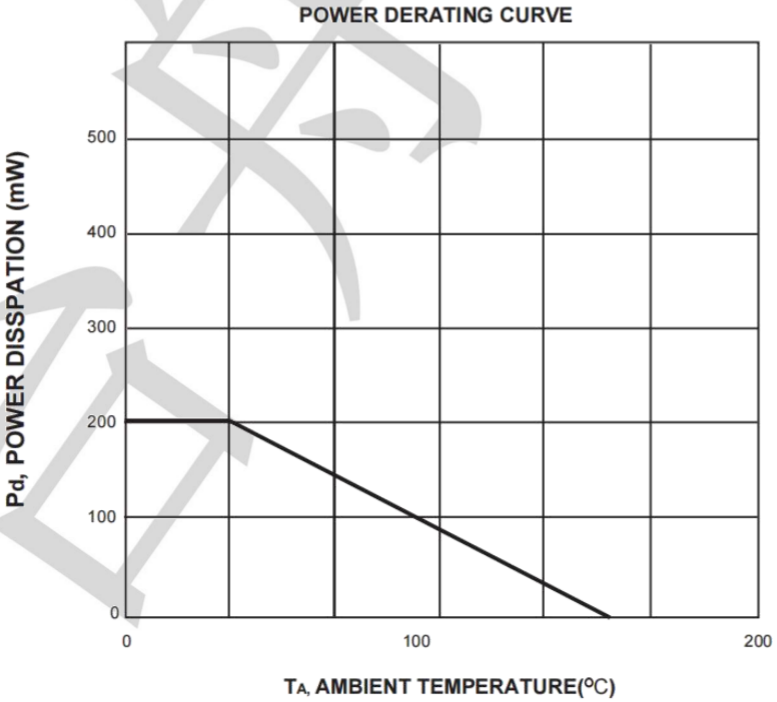
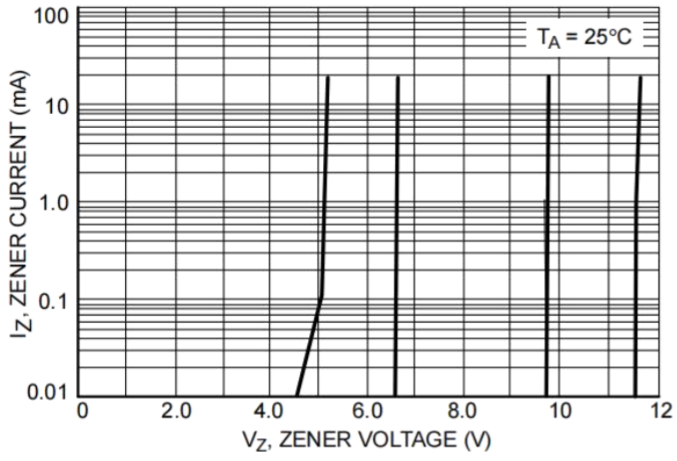
	VZ (Volts)			@ IZT	ZZT @ IZT	ZZK @ IZK		IR @ VR				
	Min	Nom	Max	mA	Ω	Ω	mA	μA	Volts	Min	Max	pF
MM3Z33VT1G-TP	31	33	35	2	80	300	0.5	0.05	23.2	27.4	33.4	70
MM3Z36VT1G-TP	34	36	38	2	90	500	0.5	0.05	25.2	30.4	37.4	70
MM3Z39VT1G-TP	37	39	41	2	130	500	0.5	0.05	27.3	33.4	41.2	45
MM3Z43VT1G-TP	40	43	46	2	150	500	0.5	0.05	30.1	37.6	46.6	40
MM3Z47VT1G-TP	44	47	50	2	170	500	0.5	0.05	32.9	42.0	51.8	40
MM3Z51VT1G-TP	48	51	54	2	180	500	0.5	0.05	35.7	46.6	57.2	40
MM3Z56VT1G-TP	52	56	60	2	200	500	0.5	0.05	39.2	52.2	63.8	40
MM3Z62VT1G-TP	58	62	66	2	215	500	0.5	0.05	43.4	58.9	71.8	35
MM3Z68VT1G-TP	64	68	72	2	240	500	0.5	0.05	47.6	65.6	79.8	35
MM3Z75VT1G-TP	70	75	79	2	255	500	0.5	0.05	52.5	73.4	88.6	35

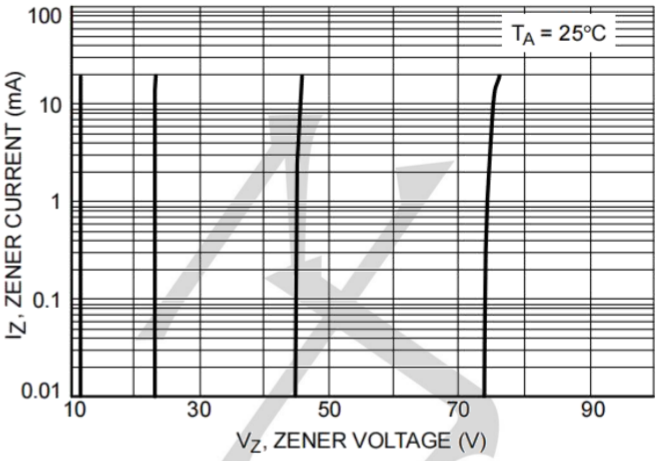
Typical Characteristics Curves



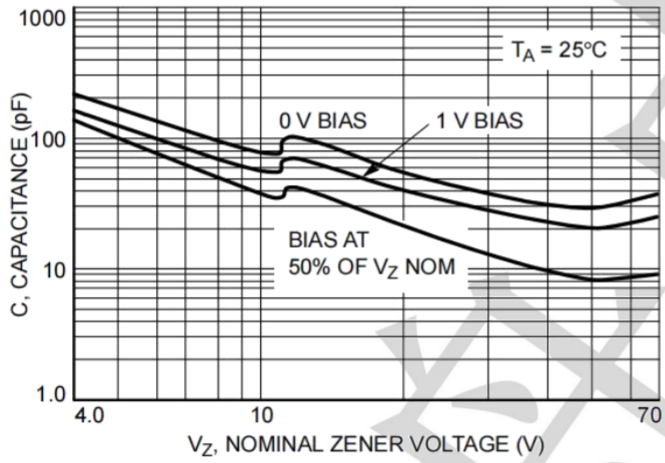
Typical Characteristics Curves



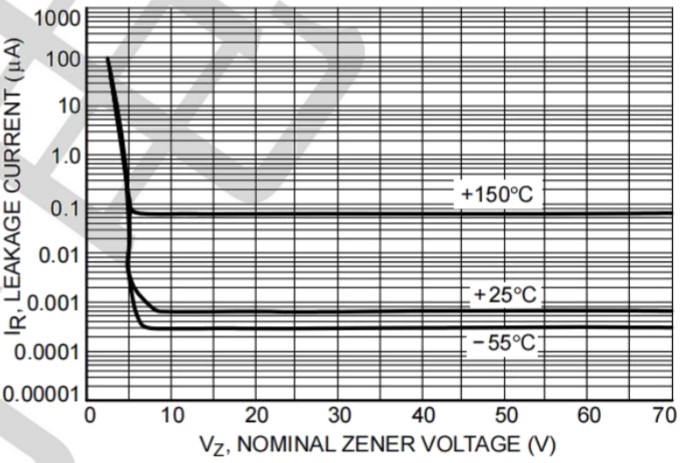
Zener Voltage versus Zener Current (V_Z Up to 12 V)



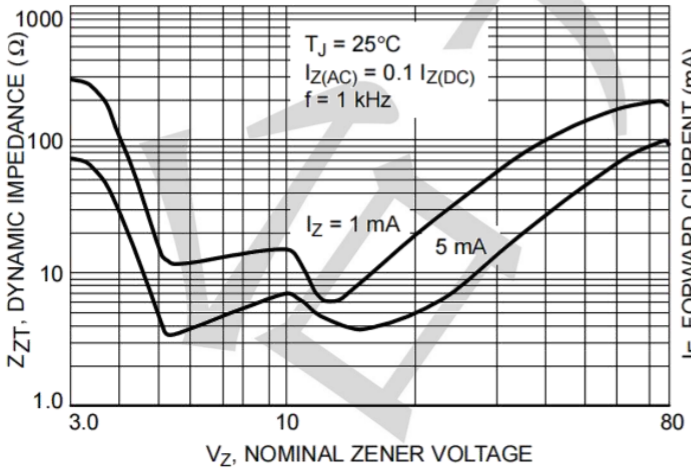
Zener Voltage versus Zener Current (12 V to 75 V)



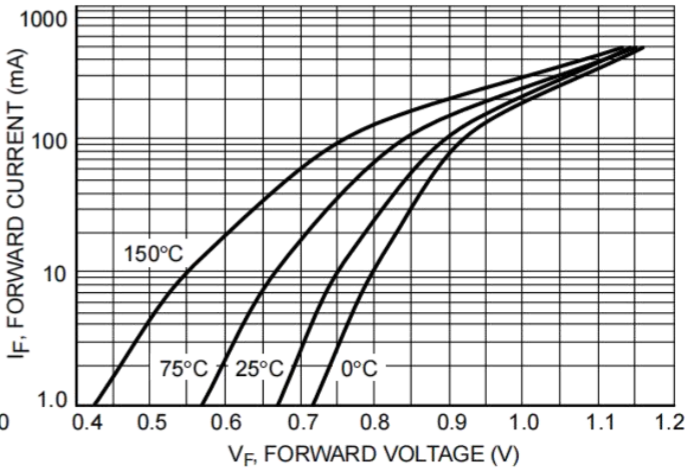
Typical Capacitance



Typical Leakage Current



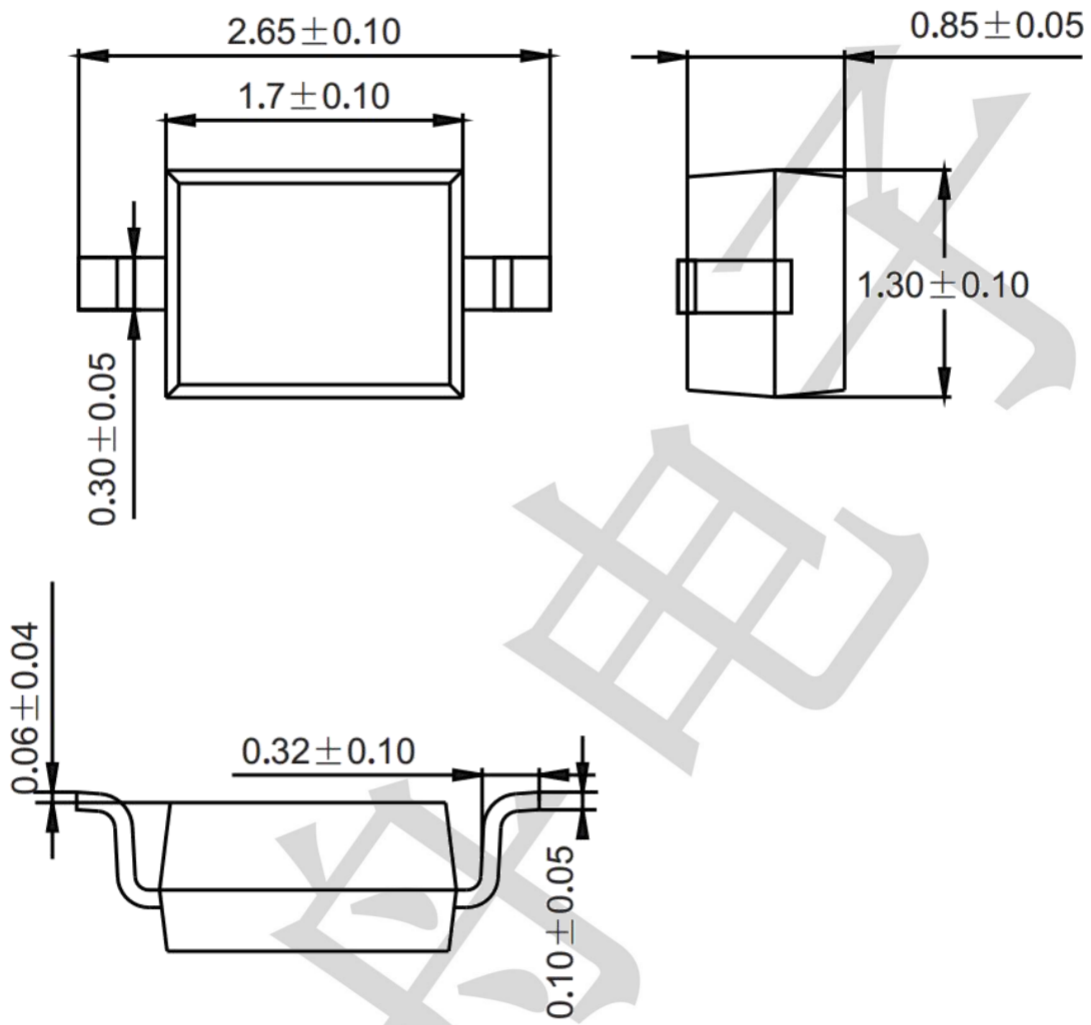
Effect of Zener Voltage on Zener Impedance



Typical Forward Voltage

Package Outline Dimensions (unit: mm)

SOD323



Mounting Pad Layout (unit: mm)