



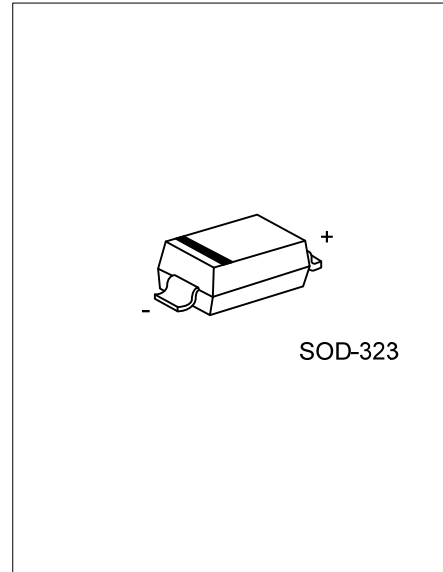
MM3Z

DIODE

ZENER VOLTAGE REGULATORS

DESCRIPTION

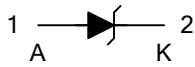
The UTC **MM3Z** is a Zener diodes is packaged in a SOD-323 surface mount package that has a power dissipation of 200 mW. They are designed to provide voltage regulation protection and are especially attractive in situations where space is at a premium. They are well suited for applications such as cellular phones, hand held portables, and high density PC boards.



FEATURES

- * Standard Zener Breakdown Voltage Range: 2.7V to 47V
- * Steady State Power Rating of 200 mW
- * ESD Rating of Class 3 (>16 kV) per Human Body Model

SYMBOL



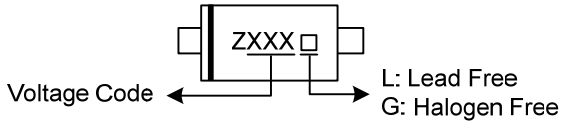
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment		Packing
Lead Free	Halogen Free		1	2	
MM3ZXVXL-CB2-R	MM3ZXVXG-CB2-R	SOD-323	A	K	Tape Reel
MM3ZXVL-CB2-R	MM3ZXVG-CB2-R	SOD-323	A	K	Tape Reel

Note: Pin Assignment: A: Anode K: Cathode

<p>MM3ZXVXG-CB2-R</p> <ul style="list-style-type: none"> (1) Packing Type (2) Package Type (3) Green Package (4) Output Voltage Code 	<ul style="list-style-type: none"> (1) R: Tape Reel (2) CB2: SOT-323 (3) G: Halogen Free and Lead Free, L: Lead Free (4) xx: 2V7: 2.7V, 3V0: 3.0V... 47V: 47V
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MARKING INFORMATION

PACKAGE	VOLTAGE CODE		MARKING
SOD-323	2.7: 2.7V	12: 12V	 <p>Voltage Code ← ZXXX → L: Lead Free G: Halogen Free</p>
	3.0: 3.0V	13: 13V	
	3.3: 3.3V	15: 15V	
	3.6: 3.6V	16: 16V	
	3.9: 3.9V	18: 18V	
	4.3: 4.3V	20: 20V	
	4.7: 4.7V	22: 22V	
	5.1: 5.1V	24: 24V	
	5.6: 5.6V	27: 27V	
	6.2: 6.2V	30: 30V	
	6.8: 6.8V	33: 33V	
	7.5: 7.5V	36: 36V	
	8.2: 8.2V	39: 39V	
	9.1: 9.1V	43: 43V	
	10: 10V	47: 47V	
	11: 11V		

■ ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	RATINGS	UNIT
Power Dissipation	P_D	200	mW
Operating Junction Temperature	T_J	-65 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

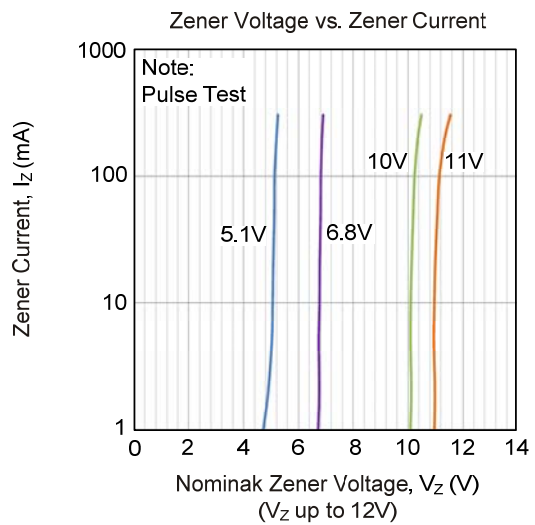
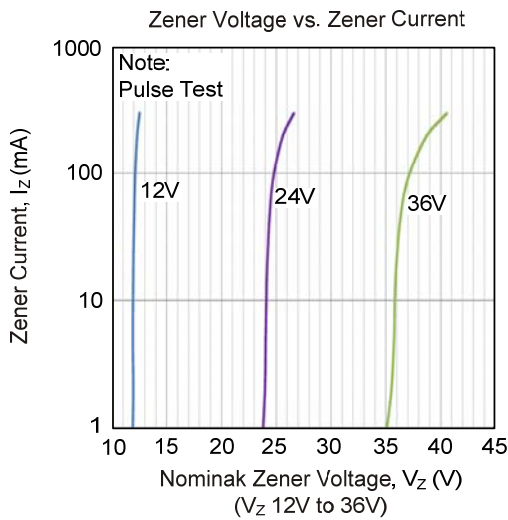
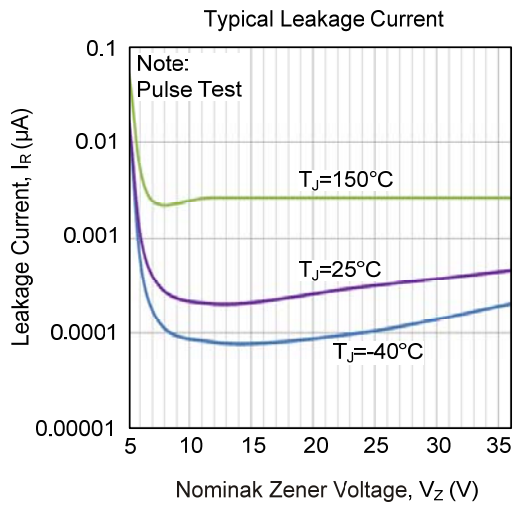
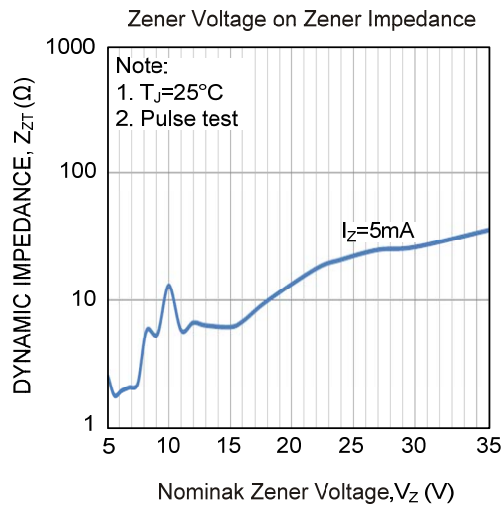
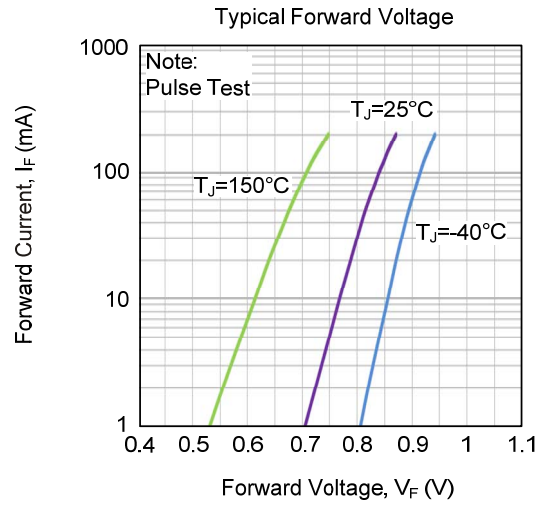
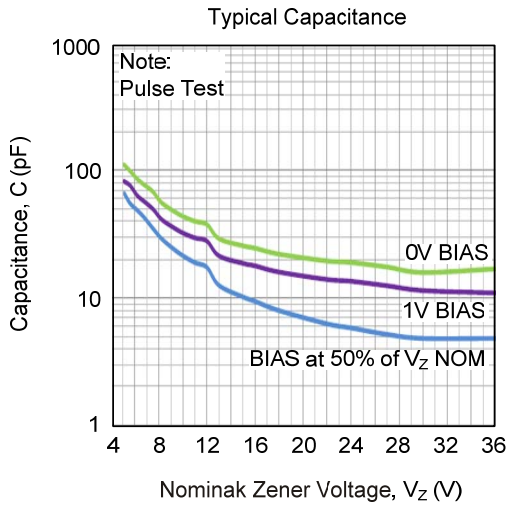
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

($V_F = 0.9\text{V Max. @ } I_F = 10\text{mA}$ for all types.)

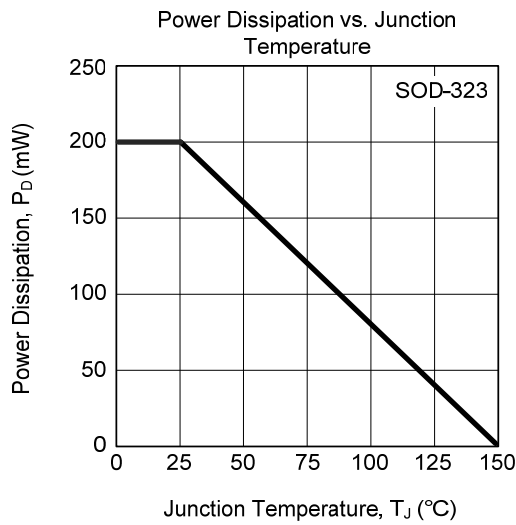
Part Number	Marking Code	Zener Voltage (Note)				Zener Impedance			Leakage Current		Θ_{Vz} (mV/K) @ I_{zT}		C @ $V_R=0$ f=1MHz
		V_z (V)			@ I_{zT}	Z_{zT} @ I_{zT}	Z_{zK} @ I_{zK}		I_R @ V_R		MIN	MAX	
		MIN	TYP	MAX	mA	Ω	Ω	mA	μA	V			
MM3Z2V7	2.7	2.5	2.7	2.9	5	100	1000	0.5	20	1.0	-3.5	0	450
MM3Z3V0	3.0	2.8	3.0	3.2	5	100	1000	0.5	10	1.0	-3.5	0	450
MM3Z3V3	3.3	3.1	3.3	3.5	5	95	1000	0.5	5	1.0	-3.5	0	450
MM3Z3V6	3.6	3.4	3.6	3.8	5	90	1000	0.5	5	1.0	-3.5	0	450
MM3Z3V9	3.9	3.7	3.9	4.1	5	90	1000	0.5	3	1.0	-3.5	-2.5	450
MM3Z4V3	4.3	4.0	4.3	4.6	5	90	1000	0.5	3	1.0	-3.5	0	450
MM3Z4V7	4.7	4.4	4.7	5.0	5	80	800	0.5	3	2.0	-3.5	0.2	260
MM3Z5V1	5.1	4.8	5.1	5.4	5	60	800	0.5	2	2.0	-2.7	1.2	225
MM3Z5V6	5.6	5.2	5.6	6.0	5	40	700	0.5	1	2.0	-2.0	2.5	200
MM3Z6V2	6.2	5.8	6.2	6.6	5	10	100	0.5	3	4.0	0.4	3.4	185
MM3Z6V8	6.8	6.4	6.8	7.2	5	15	160	0.5	2	4.0	1.2	4.5	155
MM3Z7V5	7.5	7.0	7.5	7.9	5	15	160	0.5	1	5.0	2.5	5.3	140
MM3Z8V2	8.2	7.7	8.2	8.7	5	15	160	0.5	0.7	5.0	3.2	6.2	135
MM3Z9V1	9.1	8.5	9.1	9.6	5	15	160	0.5	0.2	7.0	3.8	7.0	130
MM3Z10V	10	9.4	10	10.6	5	20	160	0.5	0.1	8.0	4.5	8.0	130
MM3Z11V	11	10.4	11	11.6	5	20	160	0.5	0.1	8.0	5.4	9.0	130
MM3Z12V	12	11.4	12	12.7	5	25	80	0.5	0.1	8.0	6.0	10	130
MM3Z13V	13	12.4	13	14.1	5	30	80	0.5	0.1	8.0	7.0	11	120
MM3Z15V	15	14.3	15	15.8	5	30	400	0.5	0.05	10.5	9.2	13	110
MM3Z16V	16	15.3	16	17.1	5	40	400	0.5	0.05	11.2	10.4	14	105
MM3Z18V	18	16.8	18	19.1	5	45	400	0.5	0.05	12.6	12.4	16	100
MM3Z20V	20	18.8	20	21.2	5	55	500	0.5	0.05	14.0	14.4	18	85
MM3Z22V	22	20.8	22	23.3	5	55	500	0.5	0.05	15.4	16.4	20	85
MM3Z24V	24	22.8	24	25.6	5	70	120	0.5	0.05	16.8	18.4	22	80
MM3Z27V	27	25.1	27	28.9	2	80	300	0.5	0.05	18.9	21.4	25.3	70
MM3Z30V	30	28	30	32	2	80	300	0.5	0.05	21.0	24.4	29.4	70
MM3Z33V	33	31	33	35	2	80	300	0.5	0.05	23.2	27.4	33.4	70
MM3Z36V	36	34	36	38	2	90	500	0.5	0.05	25.2	30.4	37.4	70
MM3Z39V	39	37	39	41	2	130	500	0.5	0.05	27.3	33.4	41.2	45
MM3Z43V	43	40	43	46	2	150	500	0.5	0.05	30.1	37.6	46.6	40
MM3Z47V	47	44	47	50	2	170	500	0.5	0.05	32.9	42.0	51.8	40

Notes: Zener voltage is measured with a pulse test current I_z at an ambient temperature of 25°C .

■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS



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