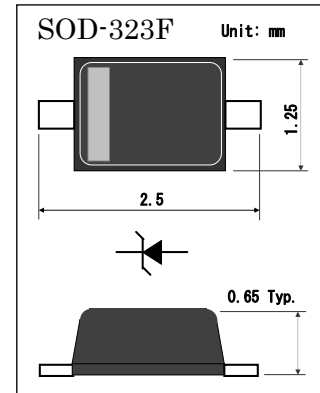


## Zener Diodes / DATA SHEET

### M3Z2V4B – M3Z75VB series

- ◇ Constant Voltage control
- ◇ Wide Voltage Range Selection 2.4V to 75V
- ◇ Vz tolerance selection of  $\pm 2\%$  (B series)
- ◇ SOD323F Thin SMD package
- ◇ RoHS compliant / Green EMC
- ◇ Matte Tin (Sn) Lead finish
- ◇ Cathode Band
- ◇ Device marking: Refer to table list



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

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	200	mW
$T_J$	Junction Temperature	150	°C
$T_{STG}$	Storage Temperature	-55 to +125	°C
$I_{ZM}$	Maximum Regulator Current	$P_D/V_Z$	mA

#### Electrical Characteristics (Ta = 25 °C)

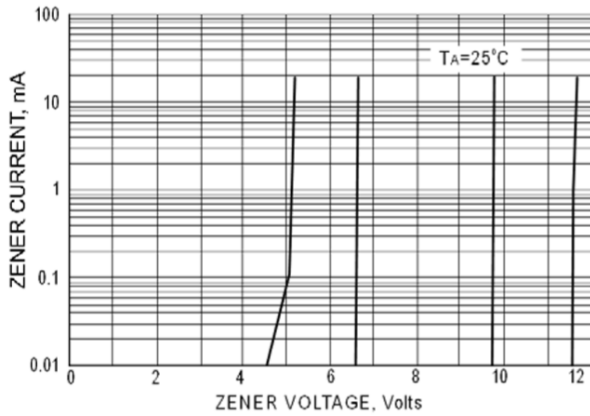
Type Number	Device Marking	Vz(V)*1			Zzt(Ω)	Iz (mA)	Zzk(Ω)	Izk (mA)	IR(μA)	VR(V)
		min.	typ.	max.	max.		max.		max.	
M3Z2V4B	2.4	2.45	2.53	2.61	100	5	1000	0.5	120	1.0
M3Z2V7B	2.7	2.71	2.80	2.89	110	5	1000	0.5	100	1.0
M3Z3V0B	3.0	3.03	3.12	3.20	120	5	1000	0.5	50	1.0
M3Z3V3B	3.3	3.34	3.43	3.51	120	5	1000	0.5	20	1.0
M3Z3V6B	3.6	3.53	3.60	3.67	100	5	1000	1	10	1.0
M3Z3V9B	3.9	3.82	3.90	3.98	100	5	1000	1	5	1.0
M3Z4V3B	4.3	4.21	4.30	4.39	100	5	1000	1	5	1.0
M3Z4V7B	4.7	4.61	4.70	4.79	100	5	800	1	2	1.0
M3Z5V1B	5.1	5.00	5.10	5.20	80	5	500	1	2	1.0
M3Z5V6B	5.6	5.49	5.60	5.71	60	5	400	1	1	1.0
M3Z6V2B	6.2	6.08	6.20	6.32	60	5	150	1	1	2.0
M3Z6V8B	6.8	6.66	6.80	6.94	40	5	80	1	0.5	3.0
M3Z7V5B	7.5	7.35	7.50	7.65	30	5	60	1	0.5	5.0

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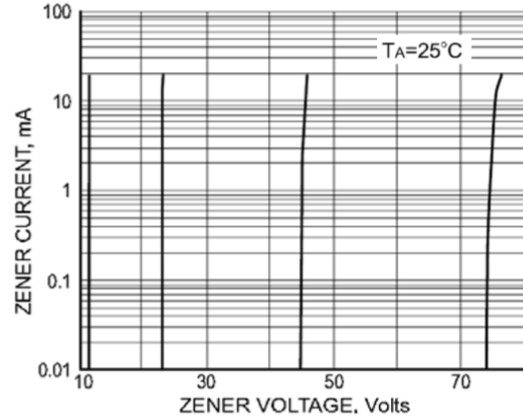
Type Number	Device Marking	V <sub>z</sub> (V)* <sup>1</sup>			Z <sub>zt</sub> (Ω)	I <sub>z</sub> (mA)	Z <sub>zk</sub> (Ω)	I <sub>zk</sub> (mA)	IR(μA)	VR(V)
		min.	typ.	max.	max.		max.		max.	
M3Z8V2B	8.2	8.04	8.20	8.36	30	5	60	1	0.5	6.1
M3Z9V1B	9.1	8.92	9.10	9.28	30	5	60	1	0.5	6.8
M3Z10VB	10.	9.80	10.00	10.20	30	5	70	1	0.1	7.5
M3Z11VB	11.	10.78	11.00	11.22	30	5	70	1	0.1	8.2
M3Z12VB	12.	11.76	12.00	12.24	30	5	90	1	0.1	9.0
M3Z13VB	13.	12.74	13.00	13.26	40	5	110	1	0.1	9.7
M3Z15VB	15.	14.70	15.00	15.30	45	5	110	1	0.1	11
M3Z16VB	16.	15.68	16.00	16.32	50	5	170	1	0.1	12
M3Z18VB	18.	17.64	18.00	18.36	65	5	170	1	0.1	14
M3Z20VB	20.	19.60	20.00	20.40	85	5	220	1	0.1	15
M3Z22VB	22.	21.56	22.00	22.44	100	5	220	1	0.1	17
M3Z24VB	24.	23.52	24.00	24.48	120	5	220	1	0.1	18
M3Z27VB	27.	26.46	27.00	27.54	150	5	220	1	0.1	20
M3Z30VB	30.	29.40	30.00	30.60	200	5	220	1	0.1	22
M3Z33VB	33.	32.34	33.00	33.66	250	5	250	1	0.1	24
M3Z36VB	36.	35.28	36.00	36.72	300	5	300	1	0.1	27
M3Z39VB	39.	38.22	39	39.78	130	5	350	0.5	0.1	27.3
M3Z43VB	43.	41.16	43	42.84	130	5	350	0.5	0.1	29.4
M3Z47VB	47.	45.83	47	48.17	170	5	1000	0.25	0.1	36
M3Z51VB	51.	49.73	51	52.27	180	5	1300	0.25	0.1	39
M3Z56VB	56.	54.60	56	57.40	200	5	1400	0.25	0.1	43
M3Z62VB	62.	60.45	62	63.55	225	5	1400	0.25	0.1	47
M3Z68VB	68.	66.30	68	69.70	240	5	1600	0.25	0.1	52
M3Z75VB	75.	73.13	75	76.87	265	5	1700	0.25	0.1	56

\*<sup>1</sup> Pulse width = 10 ms

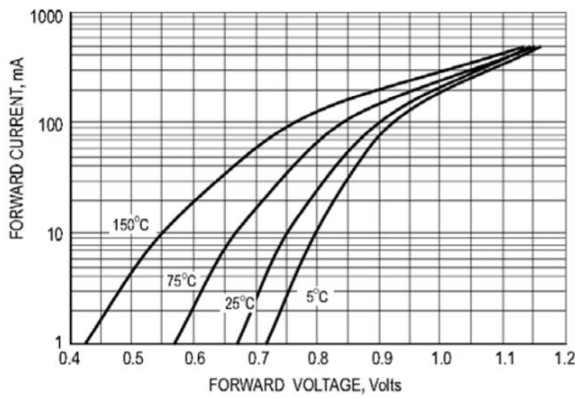
Typical Characteristics



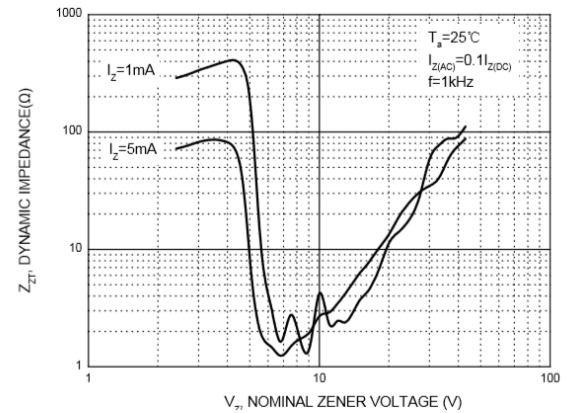
ZENER BREAKDOWN CHARACTERISTIC



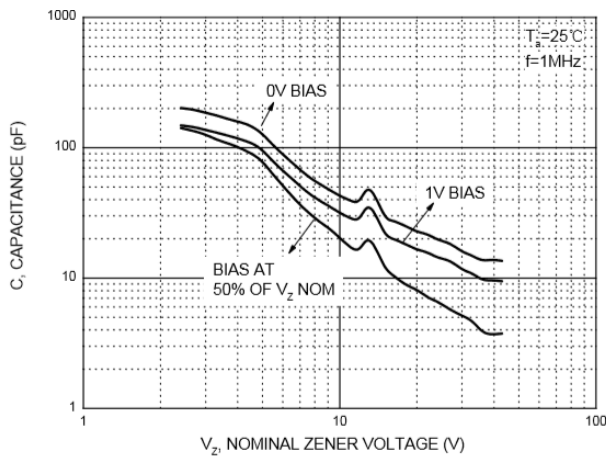
ZENER BREAKDOWN CHARACTERISTICS



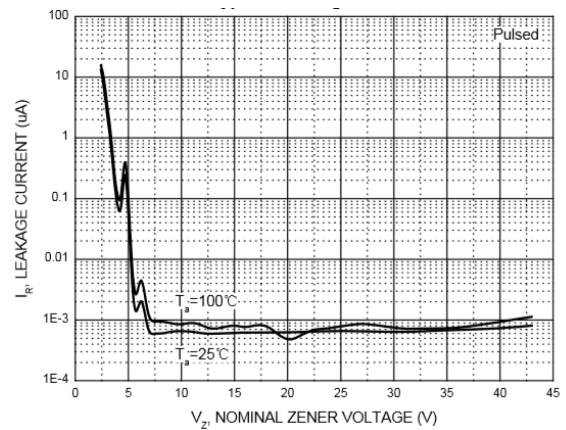
TYPICAL FORWARD VOLTAGE



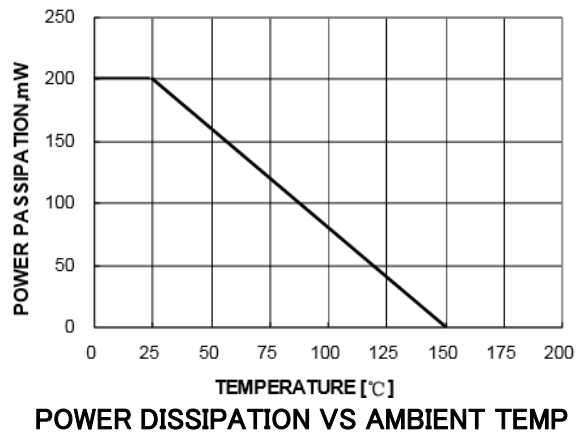
Effect of Zener Voltage on Zener Impedance



Typical Capacitance



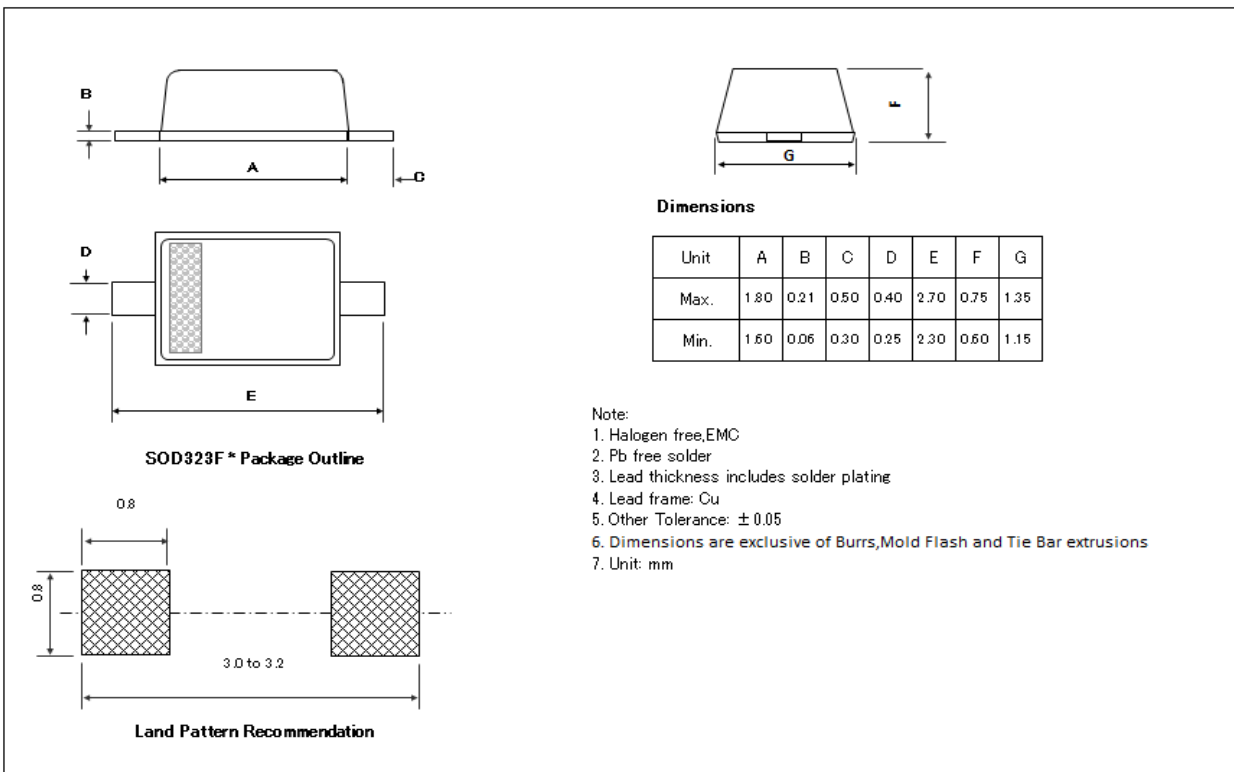
Typical Leakage Current



### Ordering Information

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
M3ZxxxB series	SOD323F	Tape & Reel 3000pcs /7" Reel	8 mm	4 mm	Conductive	

### Package Dimensions



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