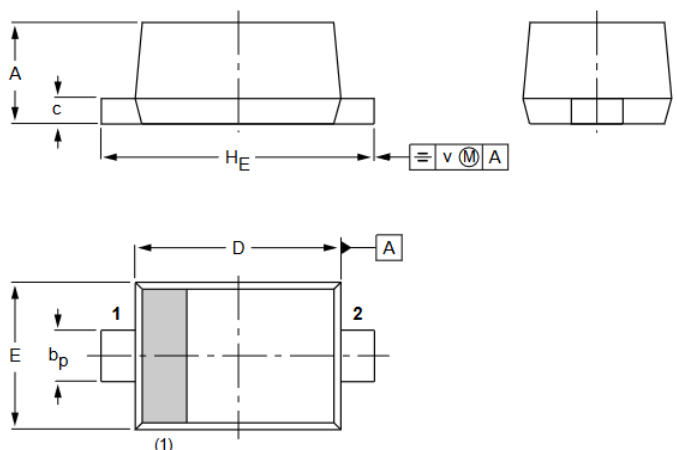


## Silicon SMD Voltage Regulator Zener Diodes

Primary characteristics		
Parameter	Value	Unit
V <sub>Z</sub> range nom.	2.0 to 75	V
Power rating	200	mW

### Features

- SOD-523 (SC-79) case for easy automatic insertion.
- Pb-Free and RoHS Compliant

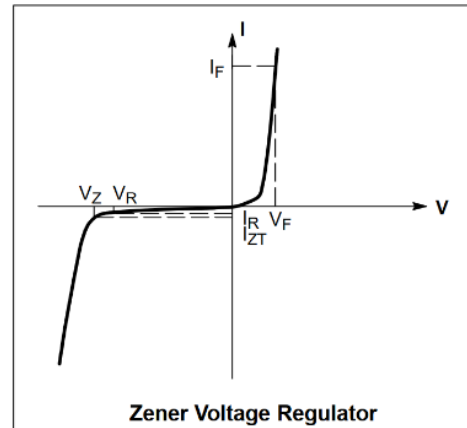
Case dimensions							
 <p style="text-align: center;"><sup>1)</sup>The marking band indicates the cathode</p>							
SOD-523							
Unit	A	b <sub>p</sub>	c	D	E	H <sub>E</sub>	V
mm	0.65 ±0.05	0.35 ±0.05	0.135 ±0.1	1.20 ±0.05	0.80 ±0.05	1.60 ±0.10	0.1

Part numbering system	
MM5Z ↓ Series code	8V2 ↓ Reverse Zener Voltage (see: <a href="#">Characteristics Table</a> )

Absolute maximum ratings (T <sub>a</sub> = 25°C)			
Parameter	Symbol	Value	Unit
Power Dissipation	P <sub>tot</sub>	200	mW
Junction and Storage Temperature Range	T <sub>j</sub> , T <sub>s</sub>	-65 to 150	°C

Characteristics (T <sub>a</sub> = 25°C)			
Parameter	Symbol	Max.	Unit
Forward Voltage at I <sub>F</sub> = 10mA	V <sub>F</sub>	900	mV

Parameters list	
Symbol	Parameter
$V_Z$	Reverse Zener Voltage @ $I_{ZT}$
$I_{ZT}$	Reverse Current
$I_R$	Reverse Leakage Current @ $V_R$
$V_R$	Reverse Voltage
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$



**Characteristics table ( $T_a = 25^\circ\text{C}$ )**

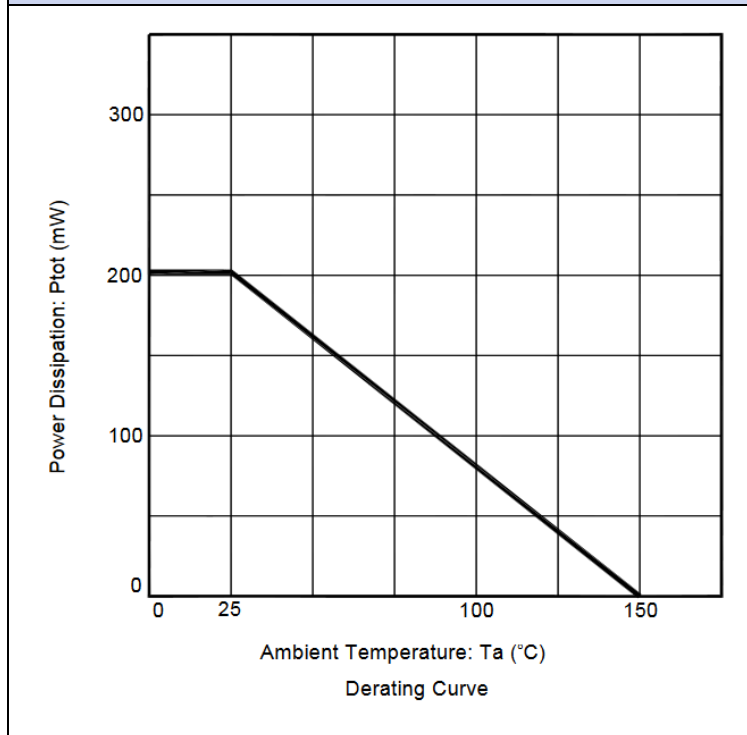
Type	Marking Code	Zener Voltage Range <sup>1)</sup>			Dynamic Resistance				Reverse Leakage Current	
		$V_Z$ nom. V	$I_{ZT}$ mA	$V_{ZT}$ V	$Z_{ZT}$ $\Omega$	$I_{ZT}$ mA	$Z_{ZK}$ $\Omega$	$I_{ZK}$ mA	$T_a = 25^\circ\text{C}$ $\mu\text{A}$	$I_R$ at $V_R$ V
MM5Z2V0	RD	2.0	5.0	1.80 ~ 2.15	<100	5.0	-	-	<120	0.5
MM5Z2V2	RE	2.2	5.0	2.08 ~ 2.33	<100	5.0	-	-	<120	0.7
MM5Z2V4	Z7	2.4	5.0	2.20 ~ 2.60	<100	5.0	<1000	1.0	<120	1.0
MM5Z2V7	A8	2.7	5.0	2.50 ~ 2.90	<100	5.0	<1000	1.0	<120	1.0
MM5Z3V0	B8	3.0	5.0	2.80 ~ 3.20	<100	5.0	<1000	1.0	<50	1.0
MM5Z3V3	C8	3.3	5.0	3.10 ~ 3.50	<95	5.0	<1000	1.0	<20	1.0
MM5Z3V6	D8	3.6	5.0	3.40 ~ 3.80	<90	5.0	<1000	1.0	<10	1.0
MM5Z3V9	E8	3.9	5.0	3.70 ~ 4.10	<90	5.0	<1000	1.0	<5.0	1.0
MM5Z4V3	F8	4.3	5.0	4.00 ~ 4.60	<90	5.0	<1000	1.0	<5.0	1.0
MM5Z4V7	G8	4.7	5.0	4.40 ~ 5.00	<80	5.0	<800	1.0	<2.0	1.0
MM5Z5V1	H8	5.1	5.0	4.80 ~ 5.40	<60	5.0	<500	1.0	<2.0	1.5
MM5Z5V6	I8	5.6	5.0	5.20 ~ 6.00	<40	5.0	<200	1.0	<1.0	2.5
MM5Z6V2	J8	6.2	5.0	5.80 ~ 6.60	<10	5.0	<100	1.0	<1.0	3.0
MM5Z6V8	K8	6.8	5.0	6.40 ~ 7.20	<15	5.0	<160	1.0	<0.5	3.5
MM5Z7V5	L8	7.5	5.0	7.00 ~ 7.90	<15	5.0	<160	1.0	<0.5	4.0
MM5Z8V2	M8	8.2	5.0	7.70 ~ 8.70	<15	5.0	<160	1.0	<0.5	5.0
MM5Z9V1	N8	9.1	5.0	8.50 ~ 9.60	<15	5.0	<160	1.0	<0.5	6.0
MM5Z10	O8	10	5.0	9.40 ~ 10.6	<20	5.0	<160	1.0	<0.1	7.0
MM5Z11	P8	11	5.0	10.4 ~ 11.6	<20	5.0	<160	1.0	<0.1	8.0
MM5Z12	Q8	12	5.0	11.4 ~ 12.7	<25	5.0	<80	1.0	<0.1	9.0
MM5Z13	R8	13	5.0	12.4 ~ 14.1	<30	5.0	<80	1.0	<0.1	10
MM5Z15	S8	15	5.0	13.8 ~ 15.6	<30	5.0	<80	1.0	<0.1	11
MM5Z16	T8	16	2.0	15.3 ~ 17.1	<40	2.0	<80	1.0	<0.1	12
MM5Z18	U8	18	2.0	16.8 ~ 19.1	<45	2.0	<80	1.0	<0.1	13
MM5Z20	V8	20	2.0	18.8 ~ 21.2	<55	2.0	<100	1.0	<0.1	15
MM5Z22	W8	22	2.0	20.8 ~ 23.3	<55	2.0	<100	1.0	<0.1	17
MM5Z24	X8	24	2.0	22.8 ~ 25.6	<70	2.0	<120	1.0	<0.1	19
MM5Z27	Y8	27	2.0	25.1 ~ 28.9	<80	2.0	<300	1.0	<0.1	21
MM5Z30	Z8	30	2.0	28.0 ~ 32.0	<80	2.0	<300	1.0	<0.1	23
MM5Z33	A9	33	2.0	31.0 ~ 35.0	<80	2.0	<300	1.0	<0.1	25
MM5Z36	B9	36	2.0	34.0 ~ 38.0	<90	2.0	<500	1.0	<0.1	27
MM5Z39	C9	39	2.0	37.0 ~ 41.0	<130	2.0	<500	1.0	<0.1	30
MM5Z43	D9	43	1.0	40.0 ~ 46.0	<150	1.0	<500	1.0	<0.1	33
MM5Z47	E9	47	1.0	44.0 ~ 50.0	<170	1.0	<500	1.0	<0.1	36
MM5Z51	F9	51	1.0	48.0 ~ 54.0	<180	1.0	<500	1.0	<0.1	39
MM5Z56	G9	56	1.0	52.0 ~ 60.0	<200	1.0	<500	1.0	<0.1	43

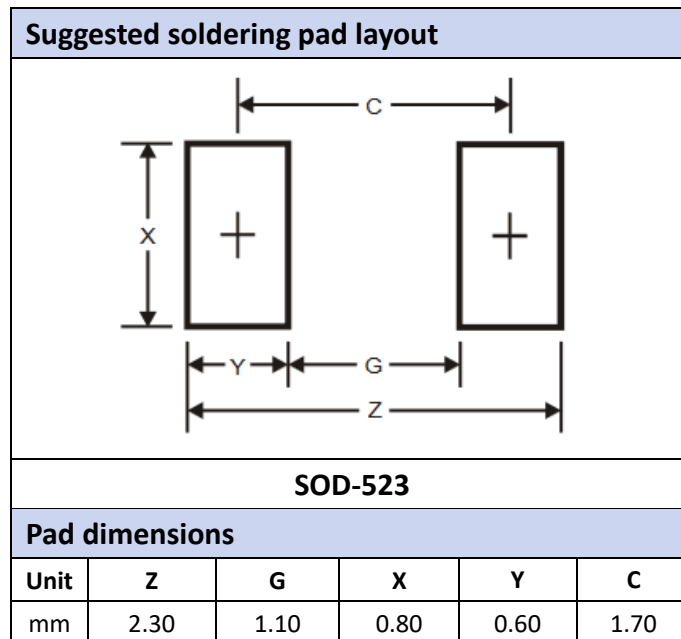
**Characteristics table ( $T_a = 25^\circ\text{C}$ )**

Type	Marking Code	Zener Voltage Range <sup>1)</sup>			Dynamic Resistance				Reverse Leakage Current	
		$V_Z$ nom. V	$I_{ZT}$ mA	$V_{ZT}$ V	$Z_{ZT}$ $\Omega$	$I_{ZT}$ mA	$Z_{ZK}$ $\Omega$	$I_{ZK}$ mA	$T_a = 25^\circ\text{C}$ $\mu\text{A}$	$I_R$ at $V_R$ V
MM5Z62	H9	62	1.0	58.0 ~ 66.0	<215	1.0	<500	1.0	<0.2	47
MM5Z68	I9	68	1.0	64.0 ~ 72.0	<240	1.0	<500	1.0	<0.2	52
MM5Z75	J9	75	1.0	70.0 ~ 79.0	<255	1.0	<500	1.0	<0.2	57

<sup>1)</sup> Tested with pulses  $t_p = 20$  ms

**Power dissipation over ambient temperature**





Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
MM5Z2V0 ~ MM5Z75	SOD-523 (SC-79)	3000 pcs / reel	---

## Disclaimer

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