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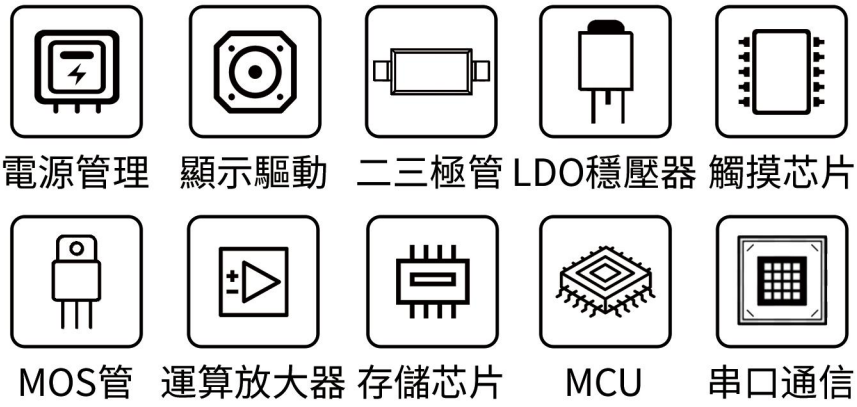


MM5Z4V7-TD

產品規格說明書

MM5Z2V0 THRU MM5Z30V

SOD-523 MM5ZXXX稳压管系列

Features

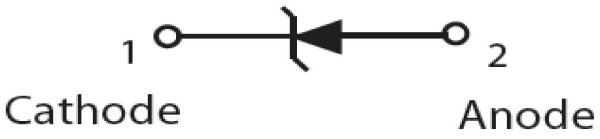
- Total power dissipation: Max. 200mW
- Wide zener reverse voltage range 2V4 to 30V
- Small plastic package suitable for surface mounted design
- 5% high-precision regulated voltage stability
- High reliability chip and packaging process

SOD-523

Applications

Low-power voltage regulator is mainly used for circuit voltage adjustment of mobile phones, hand-held devices and high-density computer motherboards.

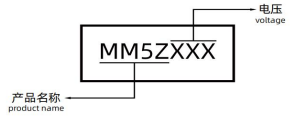
Schematic diagram of package die



Schematic diagram of package die

Parameter	Symbol	Value	Value
Power Dissipation	P_D	200	mW
Operating and Storage Temperature Range	T_J,T_{stg}	−65 to+150	°C

Ordering information

Product ID	Pack	Naming rule	voltage	Qty(PCS)
MM5ZXXX	SOD-523		2V0-30V	3000

Electrical Characteristics (TA=25℃, unless otherwise noted)

Type	Marking	Zener Voltage Range (2)			Maximum Zener mpedance (3)				Reverse Current (2)		ypical temperature coefficient @IZTC mV/°C		Test current IZTC
		VZT (at IZT)			IZT	ZZT@IZT	ZZK@IZK	IZK	IR	@VR			
		Min (V)	Nom (V)	Max (V)	(mA)	(Ω)		(mA)	μA	V	MIN	MAX	mA
MM5Z2V0	WY	1.91	2.0	2.09	5	100	600	1	150	1.0	-3.5	0	5
MM5Z2V4	00	2.2	2.4	2.6	5	100	1000	1	50	1.0	-3.5	0	5
MM5Z2V7	01	2.5	2.7	2.9	5	100	1000	1	20	1.0	-3.5	0	5
MM5Z3V0	02	2.8	3.0	3.2	5	100	1000	1	10	1.0	-3.5	0	5
MM5Z3V3	05	3.1	3.3	3.5	5	95	1000	1	5.0	1.0	-3.5	0	5
MM5Z3V6	06	3.4	3.6	3.8	5	90	1000	1	5.0	1.0	-3.5	0	5
MM5Z3V9	07	3.7	3.9	4.1	5	90	1000	1	3.0	1.0	-3.5	-2.5	5
MM5Z4V3	08	4.0	4.3	4.6	5	90	1000	1	3.0	1.0	-3.5	0	5
MM5Z4V7	09	4.4	4.7	5.0	5	80	800	1	3.0	2.0	-3.5	0.2	5
MM5Z5V1	0A	4.8	5.1	5.4	5	60	500	1	2.0	2.0	-2.7	1.2	5
MM5Z5V6	W9	5.2	5.6	6.0	5	40	400	1	1.0	2.0	-2	2.5	5
MM5Z6V2	0E	5.8	6.2	6.6	5	10	100	1	3.0	4.0	0.4	3.7	5
MM5Z6V8	0F	6.4	6.8	7.2	5	15	160	1	2.0	4.0	1.2	4.5	5
MM5Z7V5	0G	7.0	7.5	7.9	5	15	160	1	1.0	5.0	2.5	5.3	5
MM5Z8V2	0H	7.7	8.2	8.7	5	15	160	1	0.7	5.0	3.2	6.2	5
MM5Z9V1	0K	8.5	9.1	9.6	5	15	160	1	0.2	7.0	3.8	7.0	5
MM5Z10V	0L	9.4	10	10.6	5	20	160	1	0.1	8.0	4.5	8.0	5
MM5Z11V	0M	10.4	11	11.6	5	20	160	1	0.1	8.0	5.4	9.0	5
MM5Z12V	0N	11.4	12	12.7	5	25	80	1	0.1	8.0	6.0	10.0	5
MM5Z13V	0P	12.4	13.25	14.1	5	30	80	1	0.1	8.0	7.0	11.0	5
MM5Z15V	0T	14.3	15	15.8	5	30	200	1	0.05	10.5	9.2	13.0	5
MM5Z16V	0U	15.3	16.2	17.1	2	40	200	1	0.05	11.2	10.4	14.0	2
MM5Z18V	0W	16.8	18	19.1	2	45	225	1	0.05	12.6	12.4	16.0	2
MM5Z20V	0Z	18.8	20	21.2	2	55	225	1	0.05	14.0	14.4	18.0	2
MM5Z22V	10	20.8	22	23.3	2	55	250	1	0.05	15.4	16.4	20.0	2
MM5Z24V	11	22.8	24.2	25.6	2	70	120	1	0.05	16.8	18.4	22.0	2
MM5Z27V	12	25.1	27	28.9	2	80	300	1	0.05	18.9	21.4	25.3	2
MM5Z30V	14	28.0	30	32.0	2	80	300	1	0.05	21.0	24.4	29.4	2

NOTES:

（1）Zener voltage is measured with a pulse test current IZ at an ambient temperature of 25°C.

Typical Characteristics

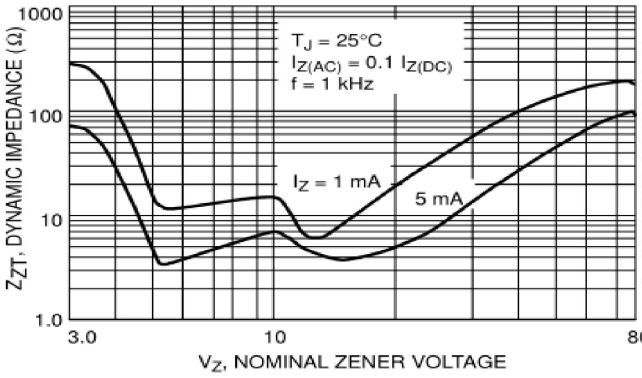


Figure 1. Effect of Zener Voltage on Zener Impedance

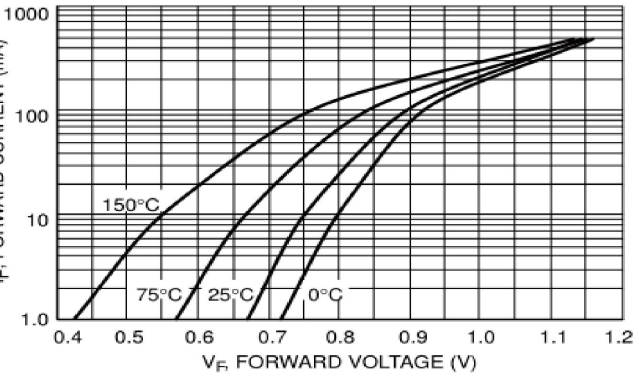


Figure 2. Typical Forward Voltage

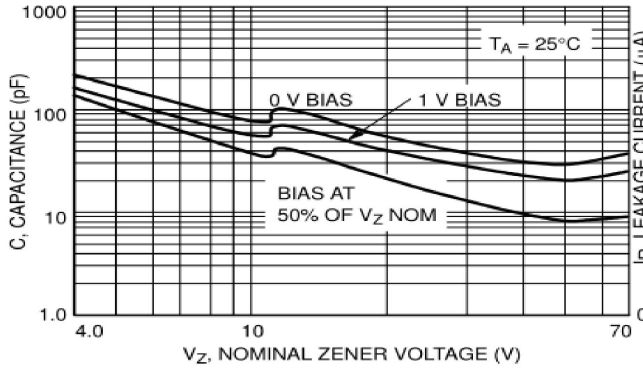


Figure 3. Typical Capacitance

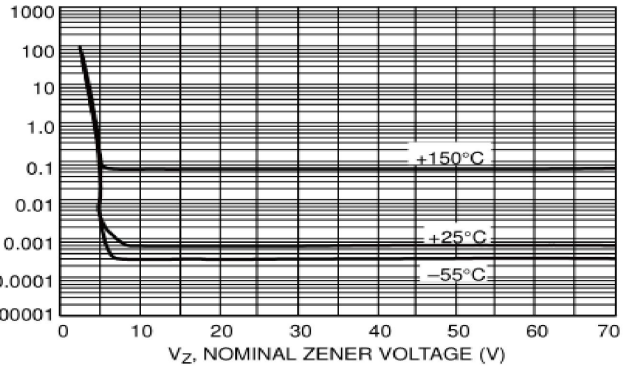


Figure 4. Typical Leakage Current

Typical Characteristics

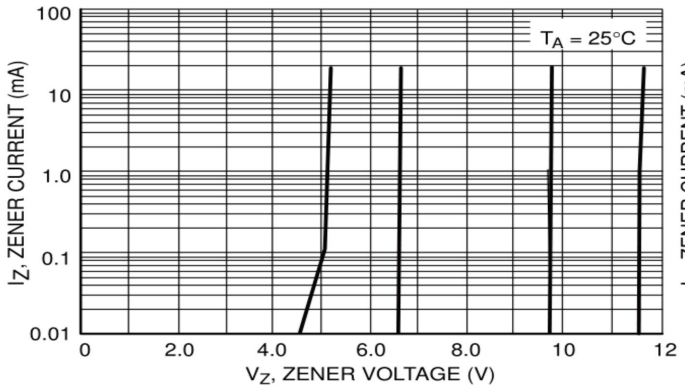


Figure 5. Zener Voltage versus Zener Current (V_Z Up to 12 V)

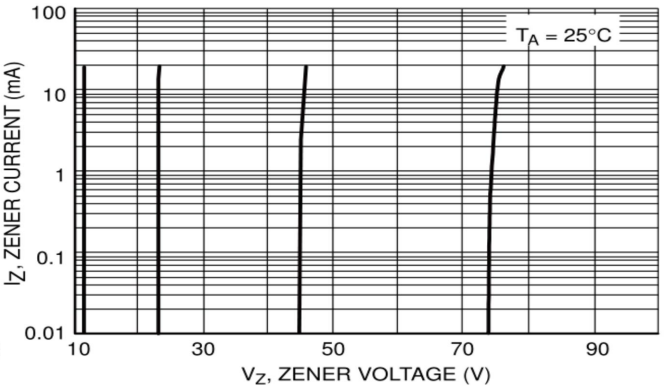


Figure 6. Zener Voltage versus Zener Current (12 V to 75 V)

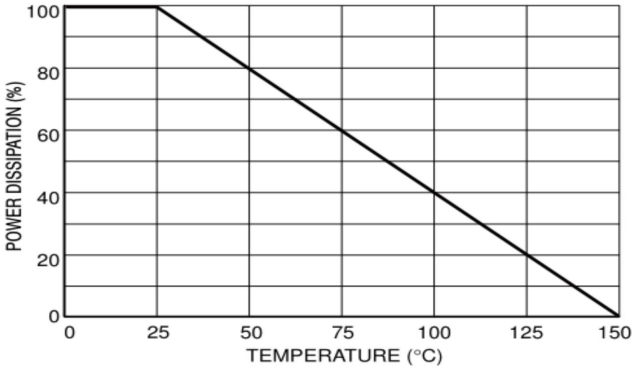
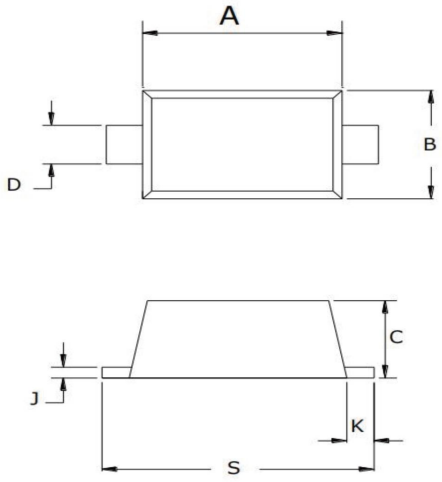


Figure 7. Steady State Power Derating

Package Outline Dimensions

SOD523



SYMBOL	MILLIMETERS	
	MIN	MAX
A	1.10	1.30
B	0.70	0.90
C	0.50	0.70
D	0.25	0.35
J	0.07	0.20
K	0.15	0.25
S	1.50	1.70

Soldering Footprint (mm)