

SOD-523 300mW Low Izt ZENER DIODE

FEATURES

- * Low Zener Impedance
- * Power Dissipation of 300mW
- * High Stability and High Reliability

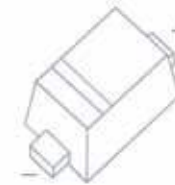
MECHANICAL DATA

- *Case: SOD-523 Small Outline Plastic Package
- * Epoxy: Device has UL flammability classification 94V-0
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Resistive or inductive load.

SOD-523



MAXIMUM RATINGS(T_a=25°C unless otherwise specified)

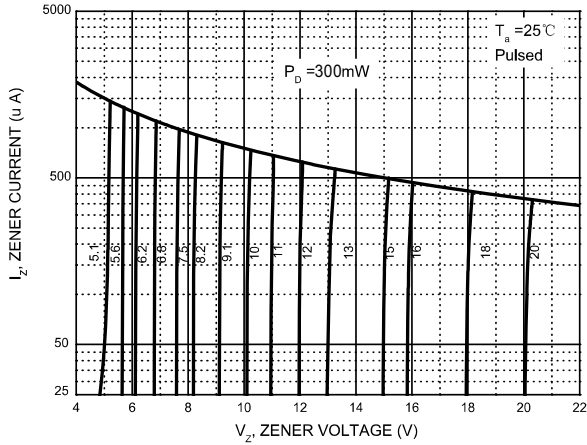
Characteristic	Symbol	Value	Unit
Forward Voltage @I _F =10mA	V _F	0.9	V
Power Dissipation (Note 1)	P _D	300	mW
JunctionTemperature	T _J	-65~+150	°C
Storage Temperature	T _{STG}	-65~+150	°C

ELECTRICAL CHARACTERISTICS (T_a =25°C unless otherwise specified)

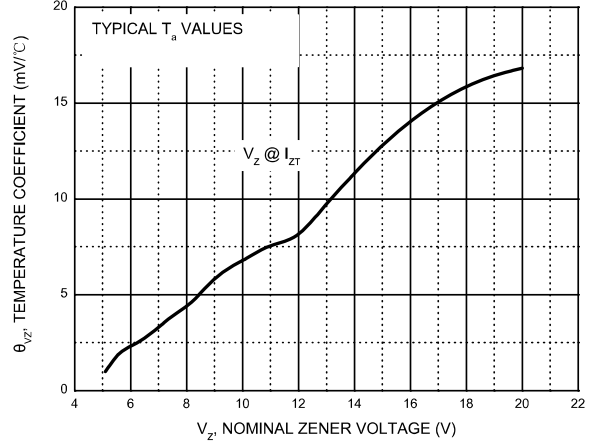
Device	Marking	Zener Voltage Range				Maximum Reverse Current	
		V _Z @I _{ZT}			I _{ZT} uA	I _R uA	V _R V
		Min(V)	Nom (V)	Max(V)			
MMSZ4678T	CC	1.71	1.8	1.89	50	7.5	1
MMSZ4679T	CD	1.90	2.0	2.10	50	5	1
MMSZ4680T	CE	2.09	2.2	2.31	50	4	1
MMSZ4681T	CF	2.28	2.4	2.52	50	2	1
MMSZ4682T	CH	2.57	2.7	2.84	50	1	1
MMSZ4683T	CJ	2.85	3.0	3.15	50	0.8	1
MMSZ4684T	CK	3.13	3.3	3.47	50	7.5	1.5
MMSZ4685T	CM	3.42	3.6	3.78	50	7.5	2
MMSZ4686T	CN	3.70	3.9	4.10	50	5	2
MMSZ4687T	CP	4.09	4.3	4.52	50	4	2
MMSZ4688T	CT	4.47	4.7	4.94	50	10	3
MMSZ4689T	CU	4.85	5.1	5.36	50	10	3
MMSZ4690T	CV	5.32	5.6	5.88	50	10	4
MMSZ4691T	CA	5.89	6.2	6.51	50	10	5
MMSZ4692T	CX	6.46	6.8	7.14	50	10	5.1
MMSZ4693T	CY	7.13	7.5	7.88	50	10	5.7
MMSZ4694T	CZ	7.79	8.2	8.61	50	1	6.2
MMSZ4695T	DC	8.27	8.7	9.14	50	1	6.6
MMSZ4696T	DD	8.65	9.1	9.56	50	1	6.9
MMSZ4697T	DE	9.50	10.0	10.50	50	1	7.6
MMSZ4698T	DF	10.45	11.0	11.55	50	0.05	8.4
MMSZ4699T	DH	11.40	12.0	12.60	50	0.05	9.1
MMSZ4700T	DJ	12.35	13.0	13.65	50	0.05	9.8
MMSZ4701T	DK	13.30	14.0	14.70	50	0.05	10.6
MMSZ4702T	DM	14.25	15.0	15.75	50	0.05	11.4
MMSZ4703T	DN	15.20	16.0	16.80	50	0.05	12.1
MMSZ4704T	DP	16.15	17.0	17.85	50	0.05	12.9
MMSZ4705T	DT	17.10	18.0	18.90	50	0.05	13.6
MMSZ4706T	DU	18.05	19.0	19.95	50	0.05	14.4
MMSZ4707T	DV	19.00	20.0	21.00	50	0.01	15.2
MMSZ4708T	DA	20.90	22.0	23.10	50	0.01	16.7
MMSZ4709T	DX	22.80	24.0	25.20	50	0.01	18.2
MMSZ4710T	DY	23.75	25.0	26.25	50	0.01	19
MMSZ4711T	EA	25.65	27.0	28.35	50	0.01	20.4
MMSZ4712T	EC	26.60	28.0	29.40	50	0.01	21.2
MMSZ4713T	ED	28.50	30.0	31.50	50	0.01	22.8
MMSZ4714T	EE	31.35	33.0	34.65	50	0.01	25
MMSZ4715T	EF	34.20	36.0	37.80	50	0.01	27.3
MMSZ4716T	EH	37.05	39.0	40.95	50	0.01	29.6
MMSZ4717T	EJ	40.85	43.0	45.15	50	0.01	32.6

RATING AND CHARACTERISTICS CURVES (MMSZ4xxxT SERIES)

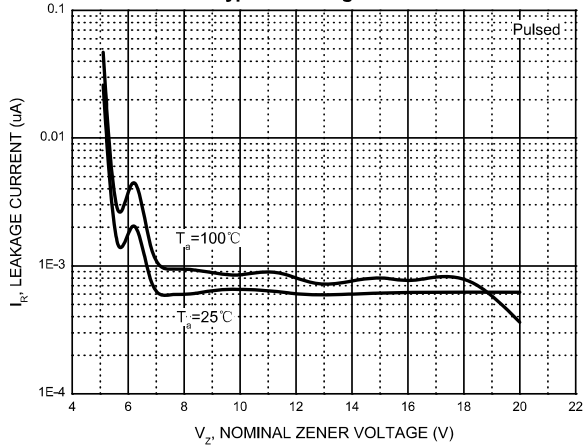
Zener Characteristics (V_z 5.1V to 20 V)



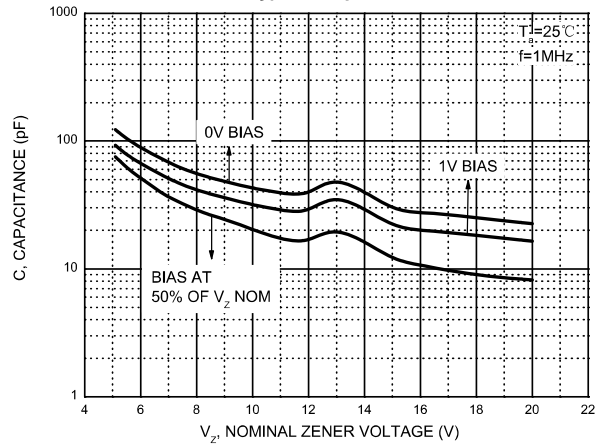
Temperature Coefficients



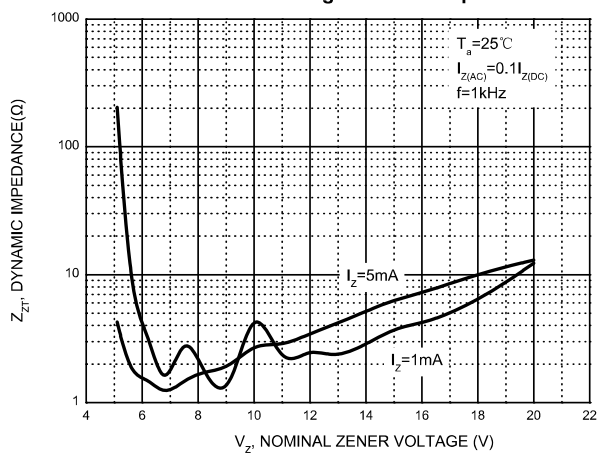
Typical Leakage Current



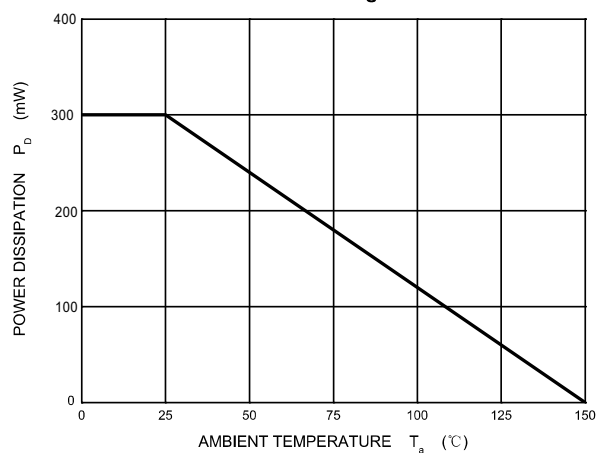
Typical Capacitance



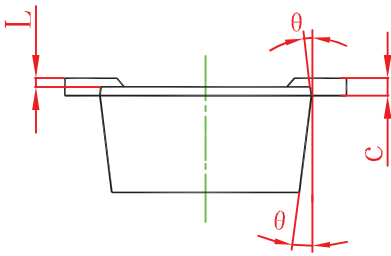
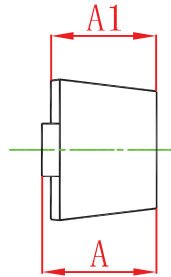
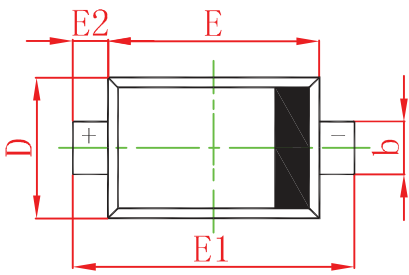
Effect of Zener Voltage on Zener Impedance



Power Derating Curve

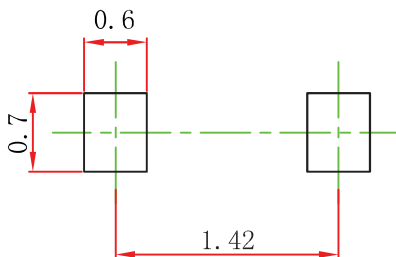


SOD-523 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.510	0.770	0.020	0.031
A1	0.500	0.700	0.020	0.028
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	0.750	0.850	0.030	0.033
E	1.100	1.300	0.043	0.051
E1	1.500	1.700	0.059	0.067
E2	0.200 REF		0.008 REF	
L	0.010	0.070	0.001	0.003
θ	7° REF		7° REF	

SOD-523 Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-523	-T	8,000	--	---	---	178	390*205*31	320,000	6.16

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