

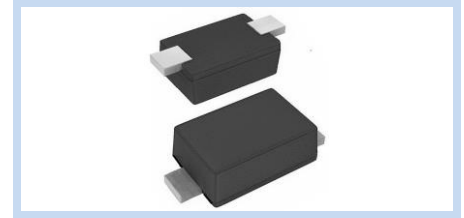
Zener Diodes SOD-523F

MM5Z Series

MERITEK

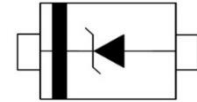
FEATURE

- Zener Voltage Range: 2.4V to 75V
- Power Dissipation: 200mW
- Clip Bonding Construction
- Good Thermal Capability



MECHANICAL DATA

- Case: SOD-523F, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026



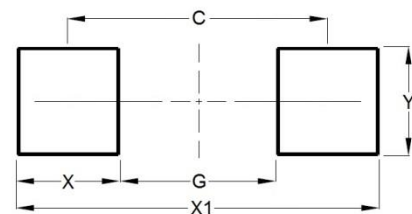
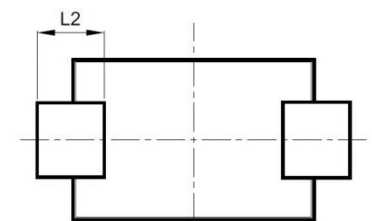
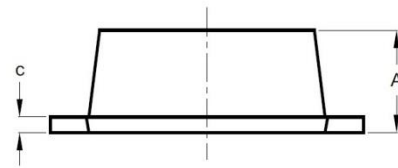
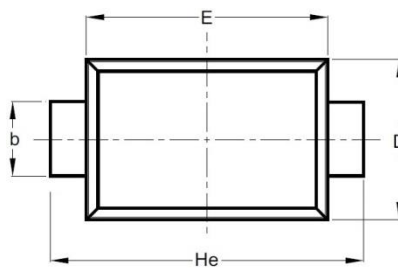
ABSOLUTE MAXIMUM RATINGS

Parameter	Symbols	Value	Unit
Power Dissipation	P_D	200	mW
Forward Voltage at $I_F=10mA$	V_F	1.0	V
Resistance Junction to Ambient	$R_{\theta JA}$	750	$^{\circ}C/W$
Junction Temperature Range	T_J	-55~+150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-55~+150	$^{\circ}C$

Note: $T_A = 25^{\circ}C$ unless otherwise noted

DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A	0.55	0.65
b	0.25	0.35
c	0.05	0.15
D	0.75	0.85
E	1.15	1.25
He	1.50	1.70
L2	0.20	0.20
C	1.47	1.47
G	0.80	0.80
X	0.53	0.53
X1	2.00	2.00
Y	0.50	0.50



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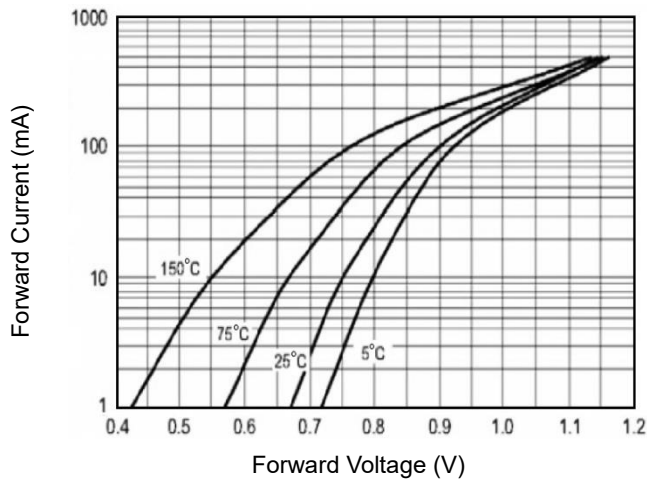
ELECTRICAL CHARACTERISTICS

Part Number	Nominal Zener Voltage				Max Zener Impedance			Max Reverse Leakage Current	
	V _Z at I _{ZT}			I _{ZT}	Z _{ZT} at I _{ZT}	Z _{ZK} at I _{ZK}	I _{ZK}	I _R at V _R	
	Nom (V)	Min (V)	Max (V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
MM5Z2V4	2.4	2.2	2.6	5	100	1000	1.0	50	1.0
MM5Z2V7	2.7	2.5	2.9	5	100	1000	1.0	20	1.0
MM5Z3V0	3.0	2.8	3.2	5	100	1000	1.0	10	1.0
MM5Z3V3	3.3	3.1	3.5	5	95	1000	1.0	5.0	1.0
MM5Z3V6	3.6	3.4	3.8	5	90	1000	1.0	5.0	1.0
MM5Z3V9	3.9	3.7	4.1	5	90	1000	1.0	3.0	1.0
MM5Z4V3	4.3	4.0	4.6	5	90	1000	1.0	3.0	1.0
MM5Z4V7	4.7	4.4	5.0	5	80	800	1.0	3.0	2.0
MM5Z5V1	5.1	4.8	5.4	5	60	500	1.0	2.0	2.0
MM5Z5V6	5.6	5.2	6.0	5	40	200	1.0	1.0	2.0
MM5Z6V2	6.2	5.8	6.6	5	10	100	1.0	3.0	4.0
MM5Z6V8	6.8	6.4	7.2	5	15	160	1.0	2.0	4.0
MM5Z7V5	7.5	7.0	7.9	5	15	160	1.0	1.0	5.0
MM5Z8V2	8.2	7.7	8.7	5	15	160	1.0	0.7	5.0
MM5Z9V1	9.1	8.5	9.6	5	15	160	1.0	0.2	7.0
MM5Z10V	10	9.4	10.6	5	20	160	1.0	0.1	8.0
MM5Z11V	11	10.4	11.6	5	20	160	1.0	0.1	8.0
MM5Z12V	12	11.4	12.7	5	25	80	1.0	0.1	8.0
MM5Z13V	13	12.4	14.1	5	30	80	1.0	0.1	8.0
MM5Z15V	15	14.3	15.8	5	30	80	1.0	0.05	10.5
MM5Z16V	16	15.3	17.1	5	40	80	1.0	0.05	11.2
MM5Z18V	18	16.8	19.1	5	45	80	1.0	0.05	12.6
MM5Z20V	20	18.8	21.2	5	55	100	1.0	0.05	14.0
MM5Z22V	22	20.8	23.3	5	55	100	1.0	0.05	15.4
MM5Z24V	24	22.8	25.6	5	70	120	1.0	0.05	16.8
MM5Z27V	27	25.1	28.9	2	80	300	0.5	0.05	18.9
MM5Z30V	30	28.0	32.0	2	80	300	0.5	0.05	21.0
MM5Z33V	33	31.0	35.0	2	80	300	0.5	0.05	23.2
MM5Z36V	36	34.0	38.0	2	90	500	0.5	0.05	25.2
MM5Z39V	39	37.0	41.0	2	130	500	0.5	0.05	27.3
MM5Z43V	43	40.0	46.0	2	150	500	0.5	0.05	30.1
MM5Z47V	47	44.0	50.0	2	170	500	0.5	0.05	32.9
MM5Z51V	51	48.0	54.0	2	180	500	0.5	0.05	35.7
MM5Z56V	56	52.0	60.0	2	200	500	0.5	0.05	39.2
MM5Z62V	62	58.0	66.0	2	215	500	0.5	0.05	43.4
MM5Z68V	68	64.0	72.0	2	240	500	0.5	0.05	47.6
MM5Z75V	75	70.0	79.0	2	255	500	0.5	0.05	52.5

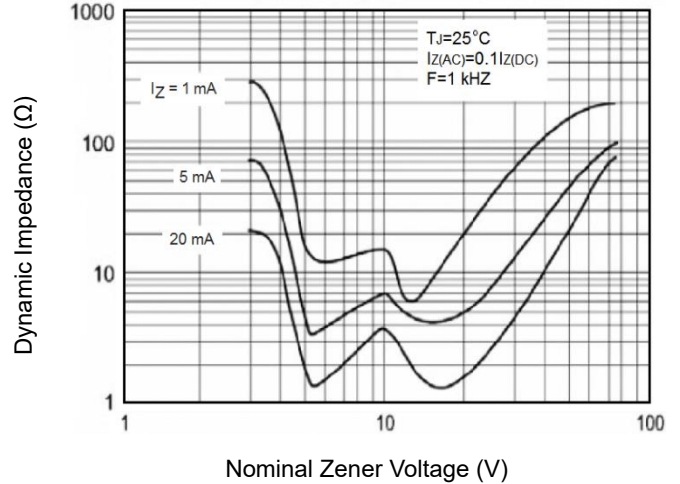
Note: 1. T_A = 25°C unless otherwise noted
2. The Zener Voltage (V_Z) is tested under pulse condition of 10ms.

CHARACTERISTIC CURVES

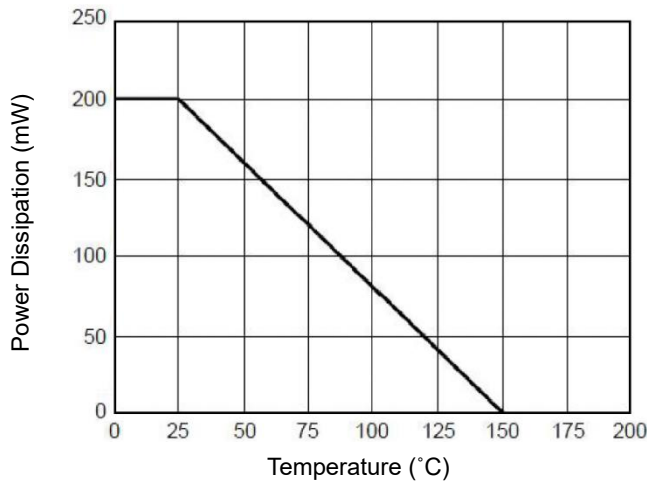
Typical Forward Voltage



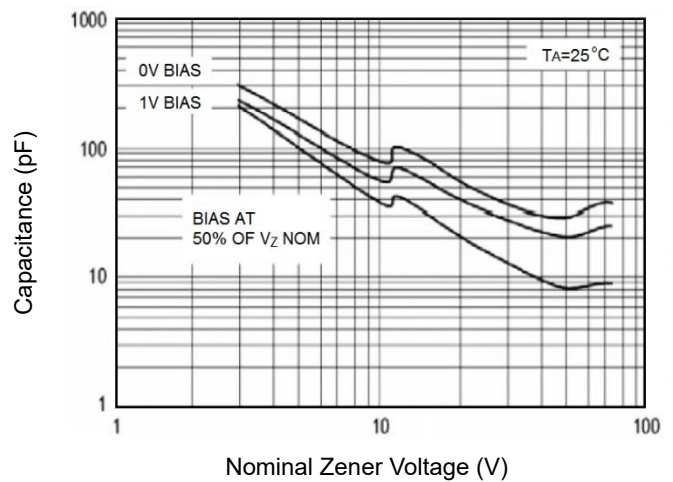
Effect of Zener Voltage on Zener Impedance



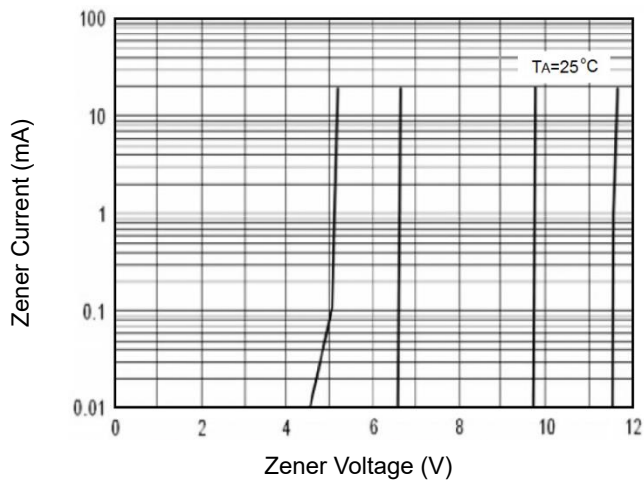
Power Derating



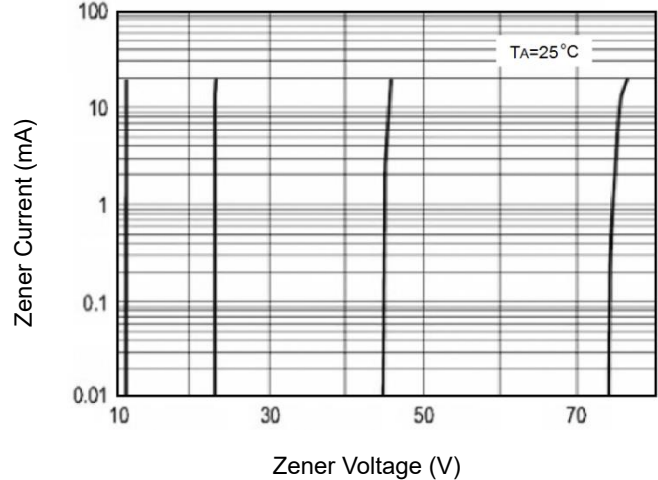
Typical Capacitance



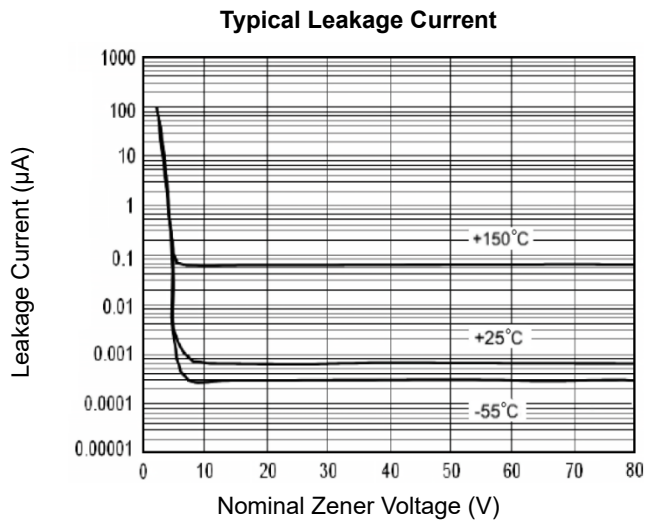
Zener Breakdown Characteristics



Zener Breakdown Characteristics



CHARACTERISTIC CURVES



*Specifications subject to change without notice.