

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

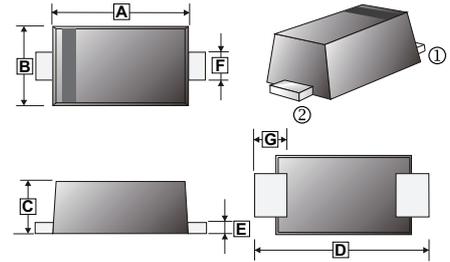
## FEATURES

- Low Leakage Current
- Moisture Sensitivity: Level 1, Per J-STD-020
- Solder Dip 260°C, 10s
- Low Profile, Typical Thickness 1mm
- For use in Stabilizing and Clipping Circuits with High Power Rating
- Built-in Strain Relief
- Low Inductance
- High Peak Reverse Power Dissipation

## MECHANICAL DATA

- Case: SOD-123FL
- Polarity: Color Band Denotes Cathode end Except Bipolar
- Mounting position: Any

### SOD-123FL



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.4	3.10	E	0.05	0.30
B	1.55	2.00	F	0.80	1.35
C	0.80	1.55	G	0.8 (Typ.)	
D	3.3	3.90			

## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123FL	3K	7 inch

## ORDER INFORMATION

Part Number	Type
MMWZ59xxFL Series	Lead (Pb)-free
MMWZ59xxFL Series-C	Lead (Pb)-free and Halogen-free

## MAXIMUM RATINGS AND THERMAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Power Dissipation @T <sub>A</sub> =50°C	P <sub>D</sub>	1.5	W
Maximum Instantaneous Forward Voltage @200mA	V <sub>F</sub>	1.2	V
Thermal Resistance from Junction-Ambient Air <sup>1</sup>	R <sub>θJA</sub>	90	°C/W
Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55~150	°C

Note:

1. The thermal resistance from junction-ambient, case or mount, mounted on P.C.B with 5×5mm copper pads, 2 OZ, FR4 PCB.

**ELECTRICAL CHARACTERISTICS** ( $T_A=25^{\circ}\text{C}$  unless otherwise specified)

Part Number	Zener Voltage		Test Current	Dynamic Impedance	Knee Current	Knee Impedance	Reverse Current	Reverse Voltage	Max. DC Current
	$V_Z / V$		$I_{ZT}$	$Z_{ZT}$	$I_{ZK}$	$Z_{ZK}$	$I_R(\text{Max})$	$V_R$	$I_{ZM}$
	$V_Z(\text{Min})$	$V_Z(\text{Max})$	mA	$\Omega$	mA	$\Omega$	$\mu\text{A}$	V	mA
MMWZ5923FL	7.79	8.61	45.7	3.5	0.5	400	5	6.5	182
MMWZ5924FL	8.65	9.56	41.2	4	0.5	500	5	7	164
MMWZ5925FL	9.5	10.5	37.5	4.5	0.25	500	5	8	150
MMWZ5926FL	10.45	11.55	34.1	5.5	0.25	550	1	8.4	136
MMWZ5927FL	11.4	12.6	31.2	6.5	0.25	550	1	9.1	125
MMWZ5928FL	12.35	13.65	28.8	7	0.25	550	1	9.9	115
MMWZ5929FL	14.25	15.75	25	9	0.25	600	1	11.4	100
MMWZ5930FL	15.2	16.8	23.4	10	0.25	600	1	12.2	93
MMWZ5931FL	17.1	18.9	20.8	12	0.25	650	1	13.7	83
MMWZ5932FL	19	21	18.7	14	0.25	650	1	15.2	75
MMWZ5933FL	20.9	23.1	17	17.5	0.25	650	1	16.7	68
MMWZ5934FL	22.8	25.2	15.6	19	0.25	700	1	18.2	62
MMWZ5935FL	25.65	28.35	13.9	23	0.25	700	1	20.6	55
MMWZ5936FL	28.5	31.5	12.5	28	0.25	750	1	22.8	50
MMWZ5937FL	31.35	34.65	11.4	33	0.25	800	1	25.1	45
MMWZ5938FL	34.2	37.8	10.4	38	0.25	850	1	27.4	41
MMWZ5939FL	37.05	40.95	9.6	45	0.25	900	1	29.7	38
MMWZ5940FL	40.85	45.15	8.7	53	0.25	950	1	32.7	34
MMWZ5941FL	44.65	49.35	8	67	0.25	1000	1	35.8	31
MMWZ5942FL	48.45	53.55	7.3	70	0.25	1100	1	38.8	29
MMWZ5943FL	53.2	58.8	6.7	86	0.25	1300	1	42.6	26
MMWZ5944FL	58.9	65.1	6	100	0.25	1500	1	47.1	24
MMWZ5945FL	64.6	71.4	5.5	120	0.25	1700	1	51.7	22
MMWZ5946FL	71.25	78.8	5	140	0.25	2000	1	56	20
MMWZ5947FL	77.9	86.1	4.6	160	0.25	2500	1	62.2	18
MMWZ5948FL	86.45	95.6	4.1	200	0.25	3000	1	69.2	16
MMWZ5949FL	95	105	3.7	250	0.25	3100	1	76	15
MMWZ5950FL	104.5	115.5	3.4	300	0.25	4000	1	83.6	13
MMWZ5951FL	114	126	3.1	380	0.25	4500	1	91.2	12
MMWZ5952FL	123.5	136.5	2.9	450	0.25	5000	1	98.8	11
MMWZ5953FL	142.5	157.5	2.5	600	0.25	6000	1	114	10
MMWZ5954FL	152	168	2.3	700	0.25	6500	1	121.6	9
MMWZ5955FL	171	189	2.1	900	0.25	7000	1	136.8	8
MMWZ5956FL	190	210	1.9	1200	0.25	8000	1	152	7

**RATINGS AND CHARACTERISTIC CURVES**

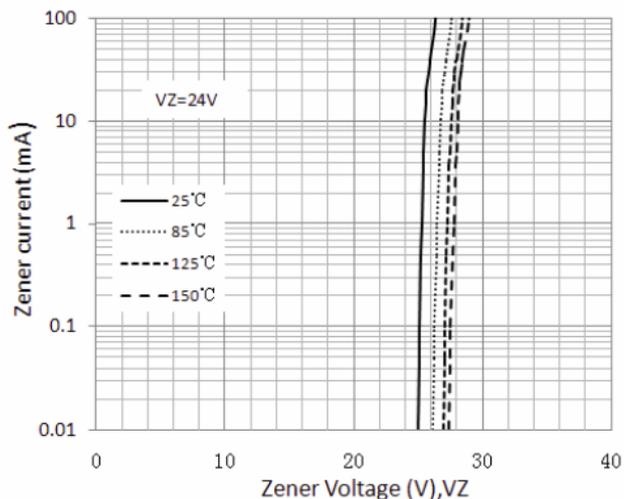


Figure 1. Typical Zener Voltage

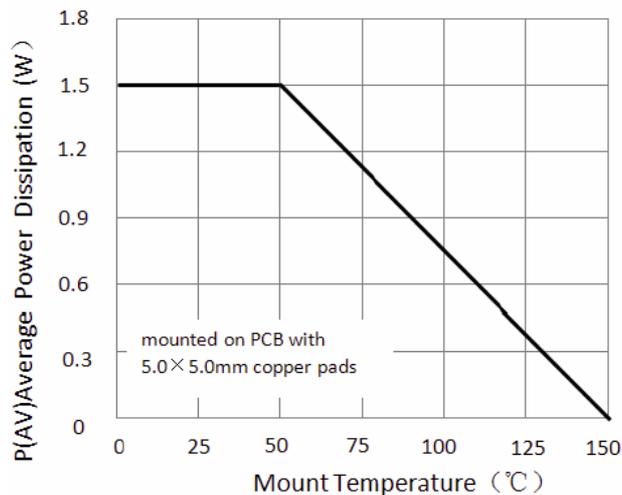


Figure 2. Steady State POWER Derating

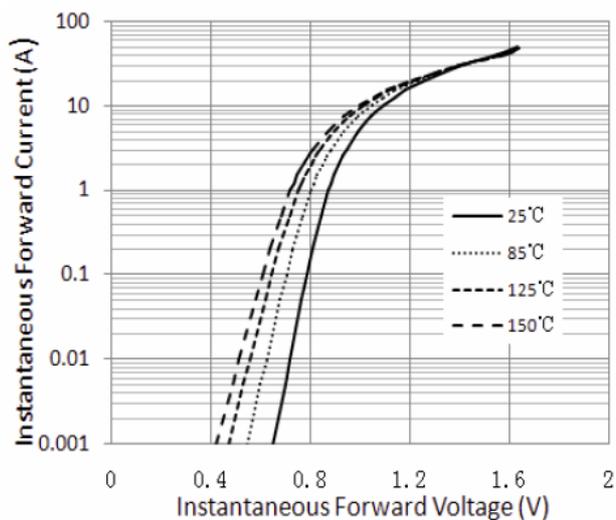


Figure 3. Typical Instantaneous Forward Characteristics

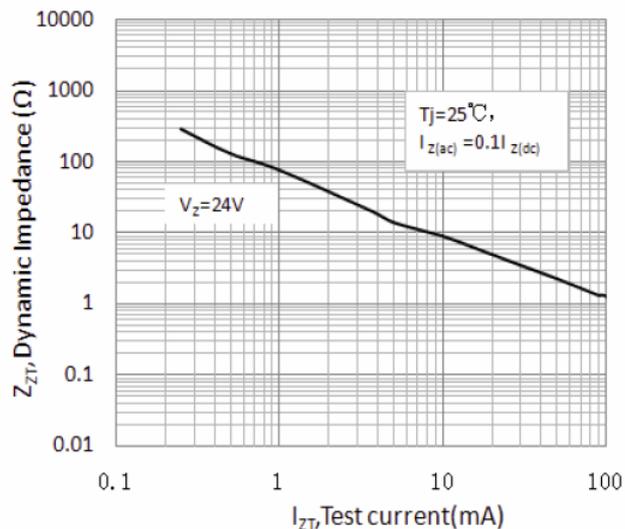


Figure 4. Typical Zener Impedance

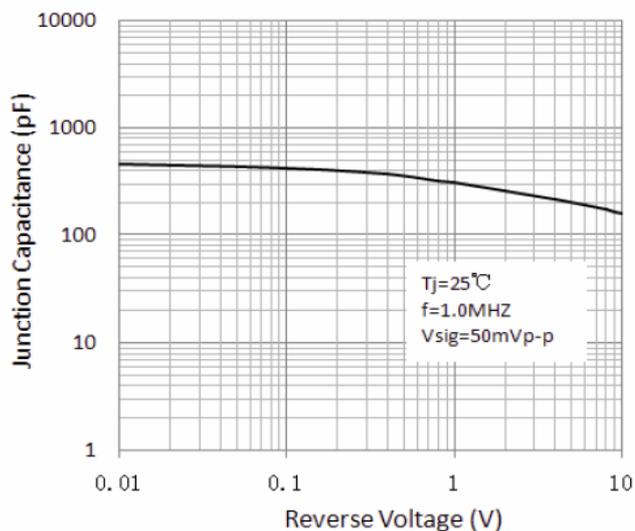


Figure 5. Typical Junction Capacitance