

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

## FEATURES

- Constant Voltage Control
- Wide Voltage Range Selection 2.4V~75V
- Tight Voltage Tolerance:  $\pm 2\%$  for B-series
- Matte Tin (Sn) Lead Finish

## MECHANICAL DATA

- Case: SOD-323L, Molded Plastic
- Mounting Position: Any
- Polarity: As Marked

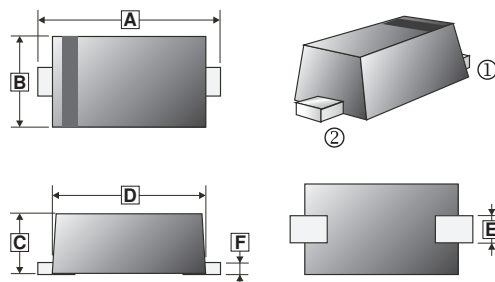
## PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-323L	3K	7 inch

## ORDER INFORMATION

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

### SOD-323L



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.30	2.80	D	1.60	2.10
B	1.05	1.60	E	0.25	0.70
C	0.60	1.08	F	0.05	0.25



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

Parameter	Symbol	Ratings	Unit
Power Dissipation	P <sub>D</sub>	200	mW
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	150, -55~150	°C

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise specified)

Part Number	Marking	Zener Voltage Range <sup>1</sup>			I <sub>ZT</sub>	Maximum Zener Impedance			Maximum Reverse Current	
		V <sub>Z</sub> @ I <sub>ZT</sub>				Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	V <sub>R</sub>
		Min.	Nom.	Max.						
		V				mA	Ω	mA	μA	V
MMPL2V4B-C	2.4	2.45	2.53	2.61	5	100	1000	0.5	120	1
MMPL2V7B-C	2.7	2.71	2.8	2.89	5	110	1000	0.5	100	1
MMPL3V0B-C	3.0	3.03	3.12	3.2	5	120	1000	0.5	50	1
MMPL3V3B-C	3.3	3.34	3.43	3.51	5	120	1000	0.5	20	1
MMPL3V6B-C	3.6	3.53	3.6	3.67	5	100	1000	1	10	1
MMPL3V9B-C	3.9	3.82	3.9	3.98	5	100	1000	1	5	1
MMPL4V3B-C	4.3	4.21	4.3	4.39	5	100	1000	1	5	1
MMPL4V7B-C	4.7	4.61	4.7	4.79	5	100	800	1	2	1

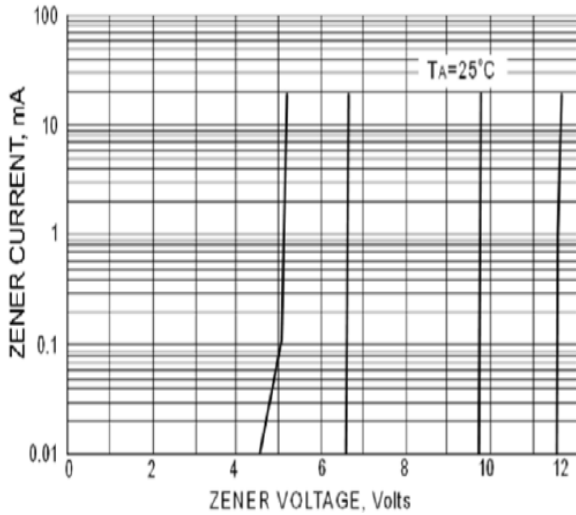
**ELECTRICAL CHARACTERISTICS** ( $T_A=25^\circ\text{C}$  unless otherwise specified)

Part Number	Marking	Zener Voltage Range <sup>1</sup>				Maximum Zener Impedance			Maximum Reverse Current	
		$V_Z @ I_{ZT}$			$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R$	$V_R$
		Min.	Nom.	Max.						
		V			mA	$\Omega$	mA	$\mu\text{A}$	V	
MMPL5V1B-C	5.1	5	5.1	5.2	5	80	500	1	2	1
MMPL5V6B-C	5.6	5.49	5.6	5.71	5	60	400	1	1	1
MMPL6V2B-C	6.2	6.08	6.2	6.32	5	60	150	1	1	2
MMPL6V8B-C	6.8	6.66	6.8	6.94	5	40	80	1	0.5	3
MMPL7V5B-C	7.5	7.35	7.5	7.65	5	30	60	1	0.5	5
MMPL8V2B-C	8.2	8.04	8.2	8.36	5	30	60	1	0.5	6.1
MMPL9V1B-C	9.1	8.92	9.1	9.28	5	30	60	1	0.5	6.8
MMPL10VB-C	10.	9.80	10	10.2	5	30	70	1	0.1	7.5
MMPL11VB-C	11.	10.78	11	11.22	5	30	70	1	0.1	8.2
MMPL12VB-C	12.	11.76	12	12.24	5	30	90	1	0.1	9
MMPL13VB-C	13.	12.74	13	13.26	5	40	110	1	0.1	9.7
MMPL15VB-C	15.	14.7	15	15.3	5	45	110	1	0.1	11
MMPL16VB-C	16.	15.68	16	16.32	5	50	170	1	0.1	12
MMPL18VB-C	18.	17.64	18	18.36	5	65	170	1	0.1	14
MMPL20VB-C	20.	19.6	20	20.4	5	85	220	1	0.1	15
MMPL22VB-C	22.	21.56	22	22.44	5	100	220	1	0.1	17
MMPL24VB-C	24.	23.52	24	24.48	5	120	220	1	0.1	18
MMPL27VB-C	27.	26.46	27	27.54	5	150	220	1	0.1	20
MMPL30VB-C	30.	29.4	30	30.6	5	200	220	1	0.1	22
MMPL33VB-C	33.	32.34	33	33.66	5	250	250	1	0.1	24
MMPL36VB-C	36.	35.28	36	36.72	5	300	300	1	0.1	27
MMPL39VB-C	39.	38.22	39	39.78	5	130	350	0.5	0.1	27.3
MMPL47VB-C	47.	45.83	47	48.17	5	170	1000	0.25	0.1	36
MMPL51VB-C	51.	49.73	51	52.27	5	180	1300	0.25	0.1	39
MMPL56VB-C	56.	54.6	56	57.4	5	200	1400	0.25	0.1	43
MMPL62VB-C	62.	60.45	62	63.55	5	225	1400	0.25	0.1	47
MMPL68VB-C	68.	66.3	68	69.70	5	240	1600	0.25	0.1	52
MMPL75VB-C	75.	73.13	75	76.87	5	265	1700	0.25	0.1	56

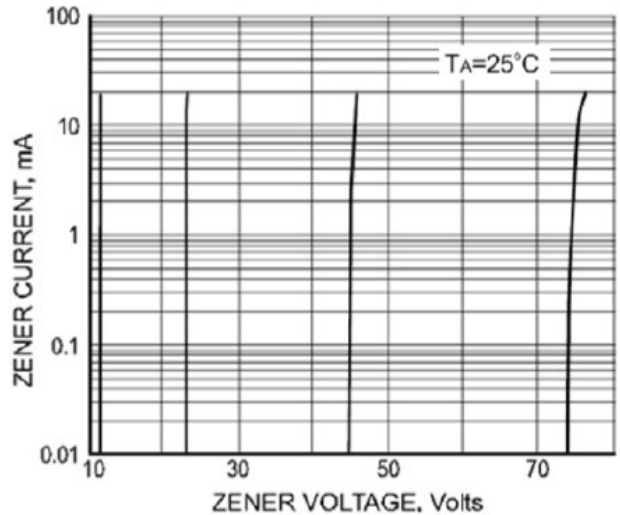
Note:  
1. Pulse width=10ms.

**CHARACTERISTIC CURVE**

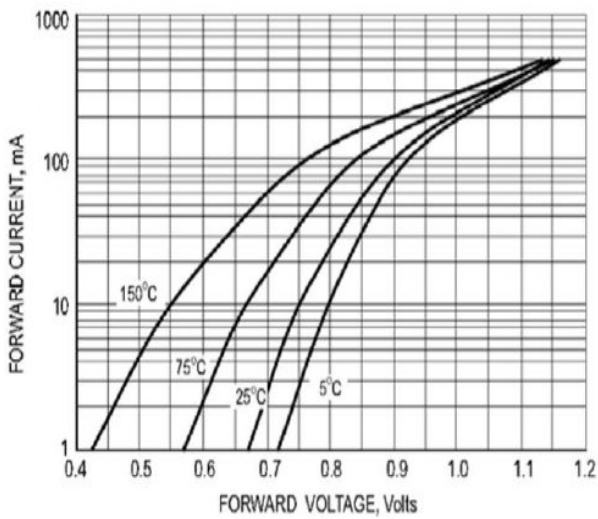
**Zener Breakdown Characteristic**



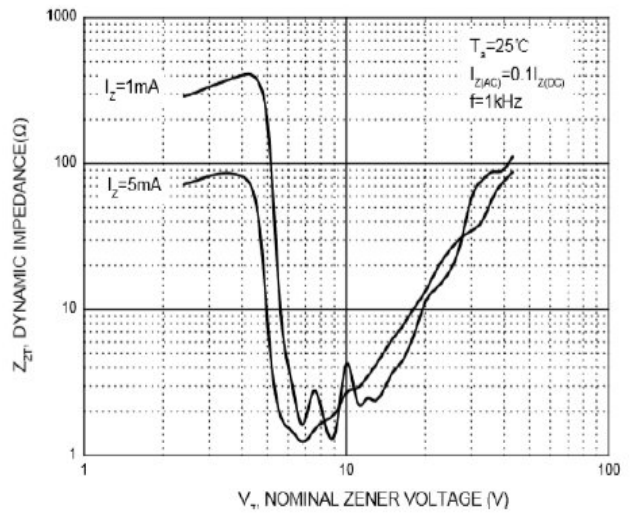
**Zener Breakdown Characteristic**



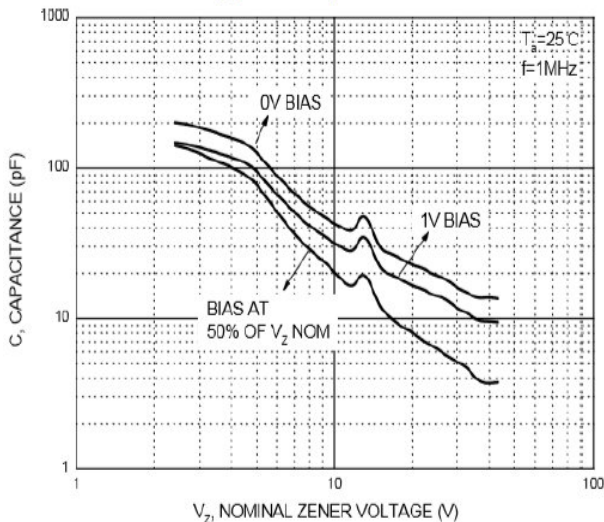
**Typical Forward Voltage**



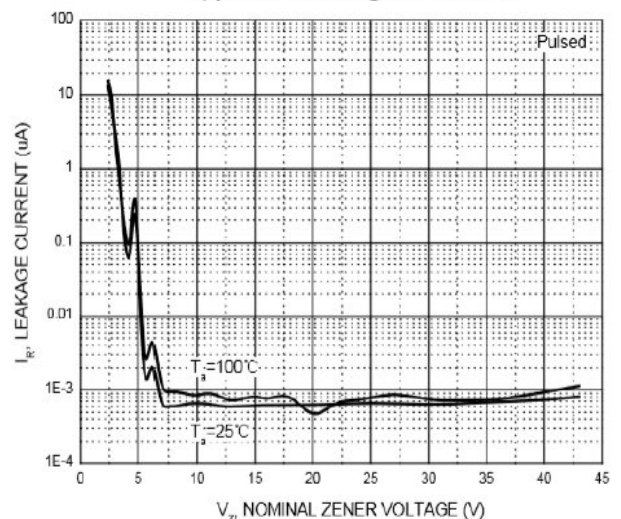
**Effect of Zener Voltage on Zener Impedance**



**Typical Capacitance**



**Typical Leakage Current**



### CHARACTERISTIC CURVE

Power Dissipation v. s Ambient Temp

