

## ZENER DIODE

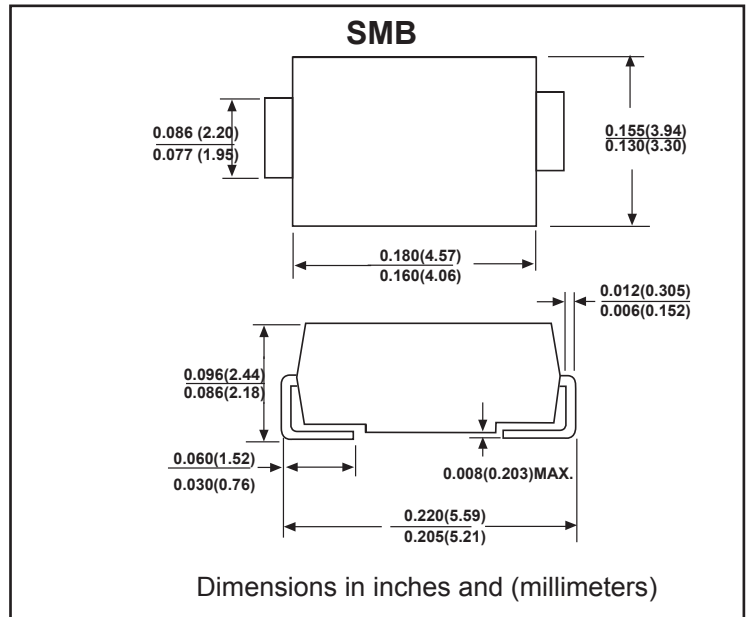
ZENER VOLTAGE RANGE: 6.2 ---330V PEAK PULSE POWER:2000mW

### FEATURES

- Low Reverse Leakage
- Low Zener Impedance
- High Stability and High Reliability

### MECHANICAL DATA

- Case: SMB
- Polarity: Color band denotes cathode end
- Mounting Position: Any



## MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

Parameters	SYMBOLS	VALUE	UNITS
Power Dissipation@TL=75°C	Pt	2.0	W
Forward voltage@IF = 200 mA	VF	1.5	V
Thermal resistance junction ambient(Note 1)	Rθ (ja)	75	°C/W
Junction Temperature and Storage Temperature Range	TJ, TSTG	-65~+150	°C

Note:1.Valid provided that leads at a distance of 9.5mm from case are kept at ambient temperature

## Electrical Specification (TA=25°C unless otherwise specified)

Part Number	Nominal Zener voltage	Test current	Maximum dynamic impedance resistance			Maximum reverse leakage current		Max Surge current
	V <sub>Z@I<sub>ZT</sub></sub>	I <sub>ZT</sub>	Z <sub>ZT@I<sub>ZT</sub></sub>	Z <sub>ZK@I<sub>ZK</sub></sub>	I <sub>ZK</sub>	I <sub>R@V<sub>R</sub></sub>	V <sub>R</sub>	I <sub>ZM@50°C</sub>
	V	mA	Ω	Ω	mA	μA	V	mA
SMB2EZ6.2	6.2	80.5	1.5	700	1.0	5.0	3.0	292
SMB2EZ7.5	7.5	66.5	2.0	700	0.5	50	5.0	242
SMB2EZ8.2	8.2	61.0	2.3	700	0.5	50	6.0	220
SMB2EZ9.1	9.1	55.0	2.5	700	0.5	50	7.0	200

# RATINGS AND CHARACTERISTIC CURVES

Electrical Specification ( $T_A=25^\circ\text{C}$  unless otherwise specified)

Part Number	Nominal Zener voltage	Test current	Maximum dynamic impedance resistance			Maximum reverse leakage current		Max Surge current
	$V_{Z@I_{ZT}}$	$I_{ZT}$	$Z_{ZT@I_{ZT}}$	$Z_{ZK@I_{ZK}}$	$I_{ZK}$	$I_{R@V_R}$	$V_R$	$I_{ZM@50^\circ\text{C}}$
	V	mA	$\Omega$	$\Omega$	mA	$\mu\text{A}$	$V_R$	mA
SMB2EZ10	10	50.0	3.5	700	0.25	50	7.6	182
SMB2EZ11	11	45.5	4.0	700	0.25	50	8.4	166
SMB2EZ12	12	41.5	4.5	700	0.25	1.0	9.1	152
SMB2EZ13	13	38.5	5.0	700	0.25	0.5	9.9	138
SMB2EZ14	14	35.7	5.5	700	0.25	0.5	10.6	130
SMB2EZ15	15	33.4	7.0	700	0.25	0.5	11.4	122
SMB2EZ16	16	31.2	8.0	700	0.25	0.5	12.2	114
SMB2EZ17	17	29.4	9.0	750	0.25	0.5	13.0	107
SMB2EZ18	18	27.8	10	750	0.25	0.5	13.7	100
SMB2EZ19	19	26.3	11	750	0.25	0.5	14.4	95
SMB2EZ20	20	25.0	11	750	0.25	0.5	15.2	90
SMB2EZ22	22	22.8	12	750	0.25	0.5	16.7	82
SMB2EZ24	24	20.8	13	750	0.25	0.5	18.2	76
SMB2EZ27	27	18.5	18	750	0.25	0.5	20.6	68
SMB2EZ30	30	16.6	20	1000	0.25	0.5	22.5	60
SMB2EZ33	33	15.1	23	1000	0.25	0.5	25.1	55
SMB2EZ36	36	13.9	25	1000	0.25	0.5	27.4	50
SMB2EZ39	39	12.8	30	1000	0.25	0.5	29.7	47
SMB2EZ43	43	11.6	35	1500	0.25	0.5	32.7	43
SMB2EZ47	47	10.6	40	1500	0.25	0.5	35.8	39
SMB2EZ51	51	9.8	48	1500	0.25	0.5	38.8	36
SMB2EZ56	56	9.0	55	2000	0.25	0.5	42.6	32
SMB2EZ62	62	8.1	60	2000	0.25	0.5	47.1	29
SMB2EZ68	68	7.4	75	2000	0.25	0.5	51.7	27
SMB2EZ75	75	6.7	90	2000	0.25	0.5	56.0	24
SMB2EZ82	82	6.1	100	3000	0.25	0.5	62.2	22
SMB2EZ91	91	5.5	125	3000	0.25	0.5	69.2	20
SMB2EZ100	100	5.0	175	3000	0.25	0.5	76.0	18
SMB2EZ110	110	4.5	250	4000	0.25	0.5	83.6	17
SMB2EZ120	120	4.2	325	4500	0.25	0.5	91.2	15
SMB2EZ130	130	3.8	400	5000	0.25	0.5	98.8	14
SMB2EZ140	140	3.6	500	5500	0.25	0.5	106.4	13
SMB2EZ150	150	3.3	575	6000	0.25	0.5	114.0	12
SMB2EZ160	160	3.1	650	6500	0.25	0.5	121.6	11
SMB2EZ170	170	2.9	675	7000	0.25	0.5	130.4	11
SMB2EZ180	180	2.8	725	7000	0.25	0.5	136.8	10
SMB2EZ190	190	2.6	825	8000	0.25	0.5	144.8	10
SMB2EZ200	200	2.5	900	8000	0.25	0.5	152.0	9.0
SMB2EZ220	220	2.0	2000	8500	0.25	0.5	167	8.0
SMB2EZ270	270	1.6	2200	8500	0.25	0.5	205	6.7
SMB2EZ300	300	1.5	2200	9000	0.25	0.5	228	5.9
SMB2EZ330	330	1.4	2300	9000	0.25	0.5	250	5.4

# RATINGS AND CHARACTERISTIC CURVES

## Electrical Specification ( $T_A=25^\circ\text{C}$ unless otherwise specified)

- NOTE:
1. Based on dc-measurement at thermal equilibrium
  2. Surge current is anon-repetitive ,8.3ms pulse width square wave or equivalent sine-wave superimposed on  $I_{ZT}$  per JEDEC method

图1: 最大连续功率损耗  
FIG1: Maximum Continuous Power Dissipation

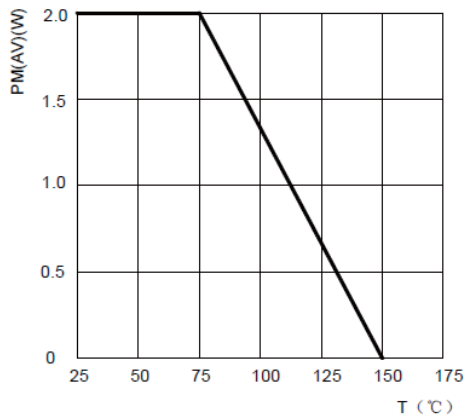


图2: 典型齐纳阻抗  
FIG2: Typical Zener Impedance

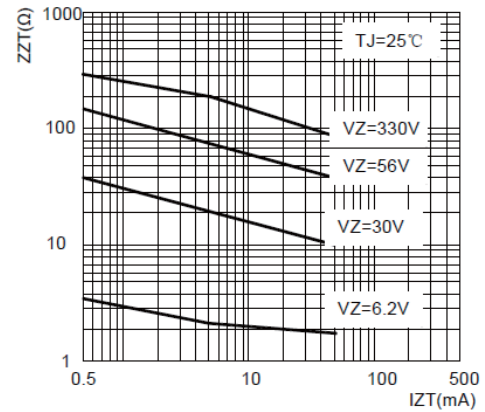


图3: 典型温度系数  
FIG3: Typical Temperature Coefficients

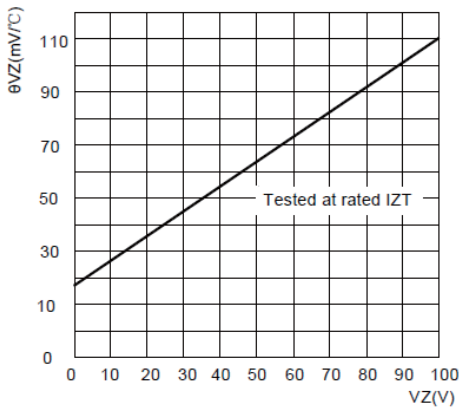


图4: 典型瞬态正向特性  
FIG4: Typical Instantaneous Forward Characteristics

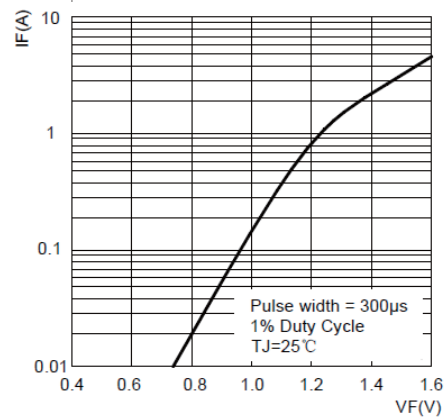


图5: 典型反向特性  
FIG5: Typical Reverse Characteristics

