

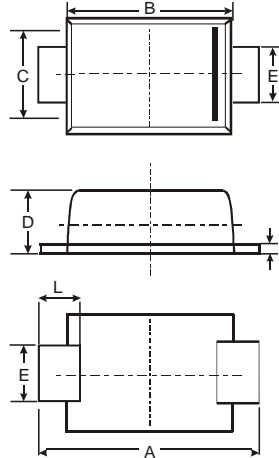
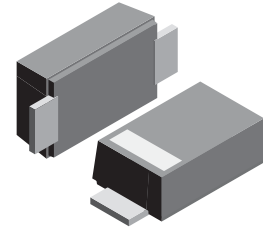
**VOLTAGE RANGE: 3.6 - 200V**  
**POWER: 2.0Watts**

### Features

- Complete Voltage Range 3.6 to 200 Volts
- High peak reverse power dissipation
- High reliability
- Low leakage current

### Mechanical Data

- Case:SMBF , Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.0018 ounces,0.05grams



SMBF			
Dim	Min	Max	Typ
A	5.45	5.55	5.50
B	4.27	4.33	4.30
C	3.57	3.63	3.60
D	1.32	1.38	1.35
E	1.96	2.00	1.98
H	0.019	0.021	0.20
L	0.73	0.77	0.75
All Dimensions in mm			

### Maximum Ratings and Electrical Characteristics T<sub>A</sub> = 25°C unless otherwise specified

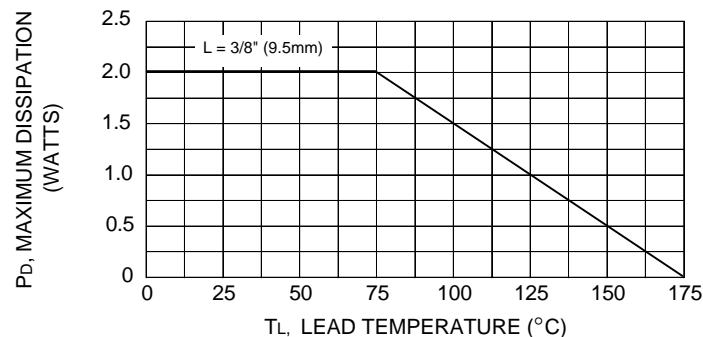
Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Rating	Symbol	Value	Unit
DC Power Dissipation at T <sub>L</sub> = 75 °C (Note1)	P <sub>D</sub>	2.0	Watts
Maximum Forward Voltage at I <sub>F</sub> = 200 mA	V <sub>F</sub>	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	R <sub>θJA</sub>	60	K / W
Junction Temperature Range	T <sub>J</sub>	- 55 to + 175	°C
Storage Temperature Range	T <sub>s</sub>	- 55 to + 175	°C

**Note :**

- (1) T<sub>L</sub> = Lead temperature at 3/8 " (9.5mm) from body
- (2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case.

**Fig. 1 POWER TEMPERATURE DERATING CURVE**





TYPE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	Vz @ IzT	IzT	ZzT @ IzT	Zzk @ Izk	Izk	IR @ VR		IzM
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)		(mA)
SMBF2Z3.6	3.6	139	5.0	400	1.0	80	1.0	504
SMBF2Z3.9	3.9	128	5.0	400	1.0	30	1.0	468
SMBF2Z4.3	4.3	116	4.5	400	1.0	20	1.0	434
SMBF2Z4.7	4.7	106	4.5	550	1.0	5.0	1.0	386
SMBF2Z5.1	5.1	98.0	3.5	600	1.0	5.0	1.0	356
SMBF2Z5.6	5.6	89.5	2.5	500	1.0	5.0	2.0	324
SMBF2Z6.2	6.2	80.5	1.5	700	1.0	5.0	3.0	292
SMBF2Z6.8	6.8	73.5	2.0	700	1.0	5.0	4.0	266
SMBF2Z7.5	7.5	66.5	2.0	700	0.5	50	5.0	242
SMBF2Z8.2	8.2	61.0	2.3	700	0.5	50	6.0	220
SMBF2Z9.1	9.1	55.0	2.5	700	0.5	50	7.0	200
SMBF2Z10	10	50.0	3.5	700	0.25	50	7.6	182
SMBF2Z11	11	45.5	4.0	700	0.25	50	8.4	166
SMBF2Z12	12	41.5	4.5	700	0.25	1.0	9.1	152
SMBF2Z13	13	38.5	5.0	700	0.25	0.5	9.9	138
SMBF2Z14	14	35.7	5.5	700	0.25	0.5	10.6	130
SMBF2Z15	15	33.4	7.0	700	0.25	0.5	11.4	122
SMBF2Z16	16	31.2	8.0	700	0.25	0.5	12.2	114
SMBF2Z17	17	29.4	9.0	750	0.25	0.5	13.0	107
SMBF2Z18	18	27.8	10	750	0.25	0.5	13.7	100
SMBF2Z19	19	26.3	11	750	0.25	0.5	14.4	95
SMBF2Z20	20	25.0	11	750	0.25	0.5	15.2	90
SMBF2Z22	22	22.8	12	750	0.25	0.5	16.7	82
SMBF2Z24	24	20.8	13	750	0.25	0.5	18.2	76
SMBF2Z27	27	18.5	18	750	0.25	0.5	20.6	68
SMBF2Z30	30	16.6	20	1000	0.25	0.5	22.5	60
SMBF2Z33	33	15.1	23	1000	0.25	0.5	25.1	55
SMBF2Z36	36	13.9	25	1000	0.25	0.5	27.4	50
SMBF2Z39	39	12.8	30	1000	0.25	0.5	29.7	47
SMBF2Z43	43	11.6	35	1500	0.25	0.5	32.7	43
SMBF2Z47	47	10.6	40	1500	0.25	0.5	35.8	39
SMBF2Z51	51	9.8	48	1500	0.25	0.5	38.8	36
SMBF2Z56	56	9.0	55	2000	0.25	0.5	42.6	32
SMBF2Z62	62	8.1	60	2000	0.25	0.5	47.1	29
SMBF2Z68	68	7.4	75	2000	0.25	0.5	51.7	27
SMBF2Z75	75	6.7	90	2000	0.25	0.5	56.0	24
SMBF2Z82	82	6.1	100	3000	0.25	0.5	62.2	22
SMBF2Z91	91	5.5	125	3000	0.25	0.5	69.2	20
SMBF2Z100	100	5.0	175	3000	0.25	0.5	76.0	18
SMBF2Z110	110	4.5	250	4000	0.25	0.5	83.6	17
SMBF2Z120	120	4.2	325	4500	0.25	0.5	91.2	15
SMBF2Z130	130	3.8	400	5000	0.25	0.5	98.8	14
SMBF2Z140	140	3.6	500	5500	0.25	0.5	106.4	13
SMBF2Z150	150	3.3	575	6000	0.25	0.5	114.0	12
SMBF2Z160	160	3.1	650	6500	0.25	0.5	121.6	11
SMBF2Z170	170	2.9	675	7000	0.25	0.5	130.4	11
SMBF2Z180	180	2.8	725	7000	0.25	0.5	136.8	10
SMBF2Z190	190	2.6	825	8000	0.25	0.5	144.8	10
SMBF2Z200	200	2.5	900	8000	0.25	0.5	152.0	9.0

**Note :**

- ( 1 ) Suffix " 5 " indicates  $\pm 5.0\%$  tolerance, suffix " 10 " indicates  $\pm 10.0\%$  tolerance.
- ( 2 ) " EZ " will be omitted in marking on the diode