

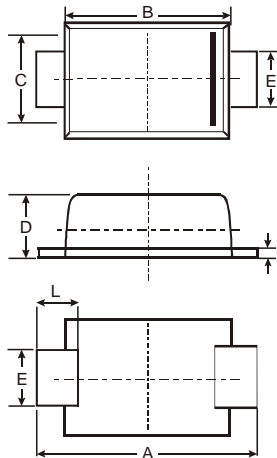
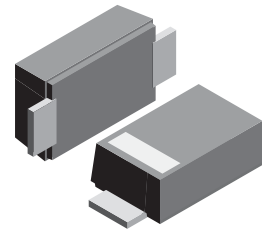
**VOLTAGE RANGE: 3.9 - 400V**  
**POWER: 3.0Watts**

### Features

- Complete Voltage Range 3.9 to 400 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			

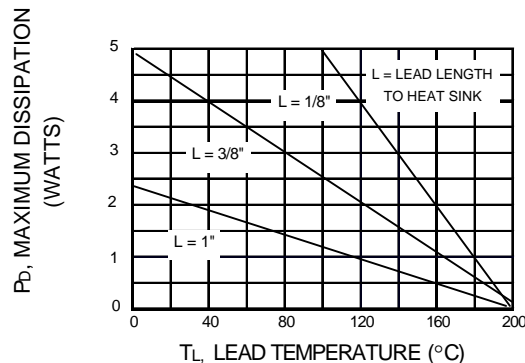
### Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation at $T_L = 75^\circ\text{C}$ (Note1)	$P_D$	3.0	Watts
Maximum Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	1.5	Volts
Maximum Thermal Resistance Junction to Ambient Air (Note2)	$R_{\theta JA}$	60	K / W
Junction Temperature Range	$T_J$	- 55 to + 175	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 55 to + 175	$^\circ\text{C}$

**Note :**

- (1)  $T_L$  = 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)	(V)	(mA)
SMBF3Z3.9	3.9	192	4.5	400	1.0	80	1.0	630
SMBF3Z4.3	4.3	174	4.5	400	1.0	30	1.0	590
SMBF3Z4.7	4.7	160	4.0	500	1.0	20	1.0	550
SMBF3Z5.1	5.1	147	3.5	550	1.0	5.0	1.0	520
SMBF3Z5.6	5.6	134	2.5	600	1.0	5.0	2.0	480
SMBF3Z6.2	6.2	121	1.5	700	1.0	5.0	3.0	435
SMBF3Z6.8	6.8	110	2.0	700	1.0	50	4.0	393
SMBF3Z7.5	7.5	100	2.0	700	0.5	50	5.0	360
SMBF3Z8.2	8.2	91	2.3	700	0.5	50	6.0	330
SMBF3Z9.1	9.1	82	2.5	700	0.5	50	7.0	297
SMBF3Z10	10	75	3.5	700	0.3	50	7.6	270
SMBF3Z11	11	68	4.0	700	0.25	50	8.4	225
SMBF3Z12	12	63	4.5	700	0.25	1.0	9.1	246
SMBF3Z13	13	58	4.5	700	0.25	0.5	9.1	208
SMBF3Z14	14	53	5.0	700	0.25	0.5	10.6	193
SMBF3Z15	15	50	5.5	700	0.25	0.5	11.4	180
SMBF3Z16	16	47	5.5	700	0.25	0.5	12.2	169
SMBF3Z17	17	44	6.0	750	0.25	0.5	13.0	159
SMBF3Z18	18	42	6.0	750	0.25	0.5	13.7	150
SMBF3Z19	19	40	7.0	750	0.25	0.5	14.4	142
SMBF3Z20	20	37	7.0	750	0.25	0.5	15.2	135
SMBF3Z22	22	34	8.0	750	0.25	0.5	16.7	123
SMBF3Z24	24	31	9.0	750	0.25	0.5	18.2	112
SMBF3Z27	27	28	10	750	0.25	0.5	20.6	100
SMBF3Z28	28	27	12	750	0.25	0.5	21.0	96
SMBF3Z30	30	25	16	1000	0.25	0.5	22.5	90
SMBF3Z33	33	23	20	1000	0.25	0.5	25.1	82
SMBF3Z36	36	21	22	1000	0.25	0.5	27.4	75
SMBF3Z39	39	19	28	1000	0.25	0.5	29.7	69
SMBF3Z43	43	17	33	1500	0.25	0.5	32.7	63
SMBF3Z47	47	16	38	1500	0.25	0.5	35.6	57
SMBF3Z51	51	15	45	1500	0.25	0.5	38.8	53
SMBF3Z56	56	13	50	2000	0.25	0.5	42.6	48
SMBF3Z62	62	12	55	2000	0.25	0.5	47.1	44
SMBF3Z68	68	11	70	2000	0.25	0.5	51.7	40
SMBF3Z75	75	10	85	2000	0.25	0.5	56.0	36
SMBF3Z82	82	9.1	95	3000	0.25	0.5	62.2	33
SMBF3Z91	91	8.2	115	3000	0.25	0.5	69.2	30
SMBF3Z100	100	7.5	160	3000	0.25	0.5	76.0	27



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)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu$ A)	(V)	(mA)
<b>SMBF3Z110</b>	110	6.8	225	4000	0.25	0.5	83.6	25
<b>SMBF3Z120</b>	120	6.3	300	4500	0.25	0.5	91.2	22
<b>SMBF3Z130</b>	130	5.8	375	5000	0.25	0.5	98.8	21
<b>SMBF3Z140</b>	140	5.3	475	5000	0.25	0.5	106.4	19
<b>SMBF3Z150</b>	150	5.0	550	6000	0.25	0.5	114.0	18
<b>SMBF3Z160</b>	160	4.7	625	6500	0.25	0.5	121.6	17
<b>SMBF3Z170</b>	170	4.4	650	7000	0.25	0.5	130.4	16
<b>SMBF3Z180</b>	180	4.2	700	7000	0.25	0.5	136.8	15
<b>SMBF3Z190</b>	190	4.0	800	8000	0.25	0.5	144.8	14
<b>SMBF3Z200</b>	200	3.7	875	8000	0.25	0.5	152.0	13
<b>SMBF3Z220</b>	220	3.4	1600	9000	0.25	1	167.0	12
<b>SMBF3Z240</b>	240	3.1	1700	9000	0.25	1	182.0	11
<b>SMBF3Z270</b>	270	2.8	1800	9000	0.25	1	205.0	10
<b>SMBF3Z300</b>	300	2.5	1900	9000	0.25	1	228.0	9
<b>SMBF3Z330</b>	330	2.3	2200	9000	0.25	1	251.0	8
<b>SMBF3Z360</b>	360	2.1	2700	9000	0.25	1	274.0	8
<b>SMBF3Z400</b>	400	1.9	3500	9000	0.25	1	304.0	7

**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