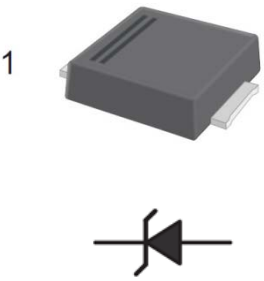
SMBF5913B~SMBF5956B

Plastic-Encapsulate Diodes

SMBF5913B~SMBF5956B ZENER DIODE

SMBF



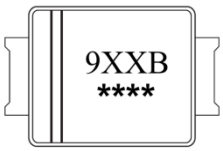
Feature

- Pd 3.0W
- Vz 3.3V-200V

Application

- Stabilizing Voltage

Marking:



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ABSOLUTE MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Forward Voltage @IF=10mA	V_F	1.2	V
Typical Thermal Resistance Junction to Lead	$R_{\theta JC}$	25	℃/W
Power Dissipation (Note1)	P_D	3.0	W
Junction Temperature	T_J	-55 ~ +150	℃
Storage Temperature	T_{STG}	-55 ~ +150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise noted)

Part Number(1)	Zener Voltage(2)				Zener Impedance(3)		Leakage Current		I_{ZM}
	V_Z (V)			@I_{ZT}	Z_{ZT} @ I_{ZT}	I_{ZK}	I_R @ V_R		
	Min	Nom	Max	(mA)	(Ω)	(mA)	(uA)	(V)	(mA)
SMBF5913B	3.10	3.3	3.50	114	10	1	100	1	454
SMBF5914B	3.40	3.6	3.80	104	9	1	75	1	416
SMBF5915B	3.70	3.9	4.10	96	7.5	1	25	1	384
SMBF5916B	4.06	4.3	4.56	87	6	1	5	1	348
SMBF5917B	4.50	4.7	4.93	80	5	1	5	1.5	319
SMBF5918B	4.84	5.1	5.36	74	4	1	5	2	294
SMBF5919B	5.32	5.6	5.92	67	2	1	5	3	267

Part Number(1)	Zener Voltage(2)				Zener Impedance(3)		Leakage Current		IZM
	VZ (V)		@IZT		ZZT @ IZT	IZK	IR @ VR		
	Min	Nom	Max	(mA)	(Ω)	(mA)	(uA)	(V)	(mA)
SMBF5920B	5.86	6.2	6.51	61	2	1	5	4	241
SMBF5921B	6.46	6.8	7.18	55	2.5	1	5	5.2	220
SMBF5922B	7.12	7.5	7.88	50	3	0.5	5	6	200
SMBF5923B	7.79	8.2	8.67	46	3.5	0.5	5	6.5	182
SMBF5924B	8.60	9.1	9.59	41	4	0.5	5	7	164
SMBF5925B	9.5	10	10.5	38	4.5	0.25	5	8	150
SMBF5926B	10.45	11	11.55	34	5.5	0.25	1	8.4	136
SMBF5927B	11.4	12	12.6	31	6.5	0.25	1	9.1	125
SMBF5928B	12.4	13	14.1	29	7	0.25	1	9.9	115
SMBF5929B	13.8	15	15.8	25	9	0.25	1	11.4	100
SMBF5930B	15.2	16	17.1	23	10	0.25	1	12.2	93
SMBF5931B	16.8	18	19.2	21	12	0.25	1	13.7	83
SMBF5932B	19	20	21.2	19	14	0.25	1	15.2	75
SMBF5933B	20.8	22	23.3	17	18	0.25	1	16.7	68
SMBF5934B	22.8	24	26.0	16	19	0.25	1	18.2	62
SMBF5935B	25.3	27	28.9	14	23	0.25	1	20.6	55
SMBF5936B	28.2	30	32.0	12.5	26	0.25	1	22.8	50
SMBF5937B	31.3	33	34.9	11.4	33	0.25	1	25.1	45
SMBF5938B	34.2	36	37.9	10.4	38	0.25	1	27.4	41
SMBF5939B	37.2	39	40.95	9.6	45	0.25	1	29.7	38
SMBF5940B	40.9	43	45.6	8.7	53	0.25	1	32.7	34
SMBF5941B	44.9	47	49.8	8	67	0.25	1	35.8	31
SMBF5942B	48.6	51	54.0	7.3	70	0.25	1	38.8	29
SMBF5943B	53.6	56	58.8	6.7	86	0.25	1	42.6	26
SMBF5944B	58.9	62	65.6	6	100	0.25	1	47.1	24
SMBF5945B	64.6	68	71.7	5.5	120	0.25	1	51.7	22
SMBF5946B	71.2	75	78.8	5	140	0.25	1	56	20
SMBF5947B	77.9	82	87.0	4.6	160	0.25	1	62.2	18
SMBF5948B	86.0	91	96.0	4.1	200	0.25	1	69.2	16
SMBF5949B	95	100	105	3.7	250	0.25	1	76	15
SMBF5950B	104	110	116	3.4	300	0.25	1	83.6	13
SMBF5951B	114	120	127	3.1	380	0.25	1	91.2	12
SMBF5952B	125	130	142	2.8	470	0.25	1	98.8	11
SMBF5953B	140	150	157	2.5	600	0.25	1	114	10
SMBF5954B	155	160	172	2.3	720	0.25	1	121.6	9
SMBF5955B	170	180	191	2.1	900	0.25	1	136.8	8
SMBF5956B	189	200	211	1.9	1200	0.25	1	152	7

Note : 1.Preheating:150~180℃, Time:60~90sec. 2.Peak Temp.:245±5℃, Duration:5±0.5sec.

3.Cooling Speed: 2~10℃/sec.

Typical Characteristics

Fig.1 temperature coefficent Ranges
Units 10 to 200 Volts

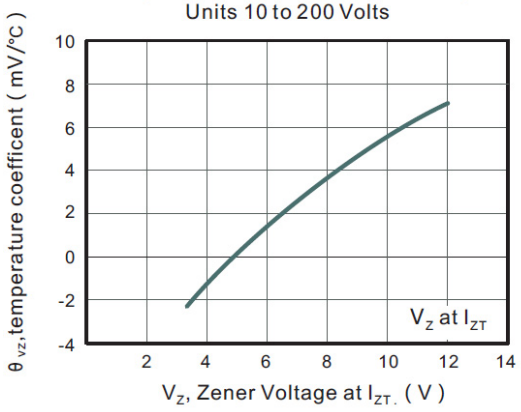


Fig.2 temperature coefficent Ranges
Units 10 to 200 Volts

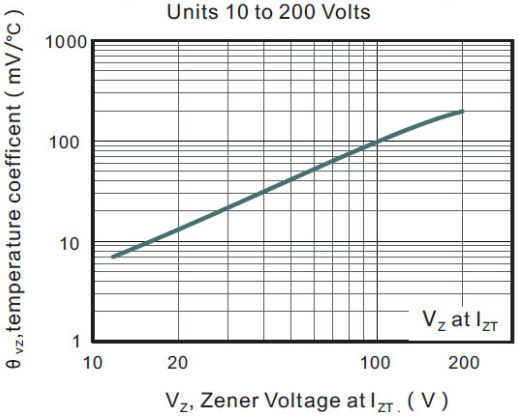
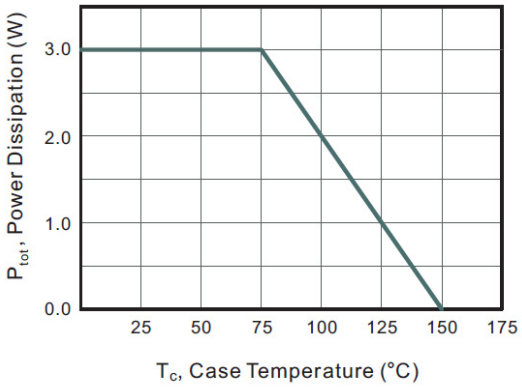
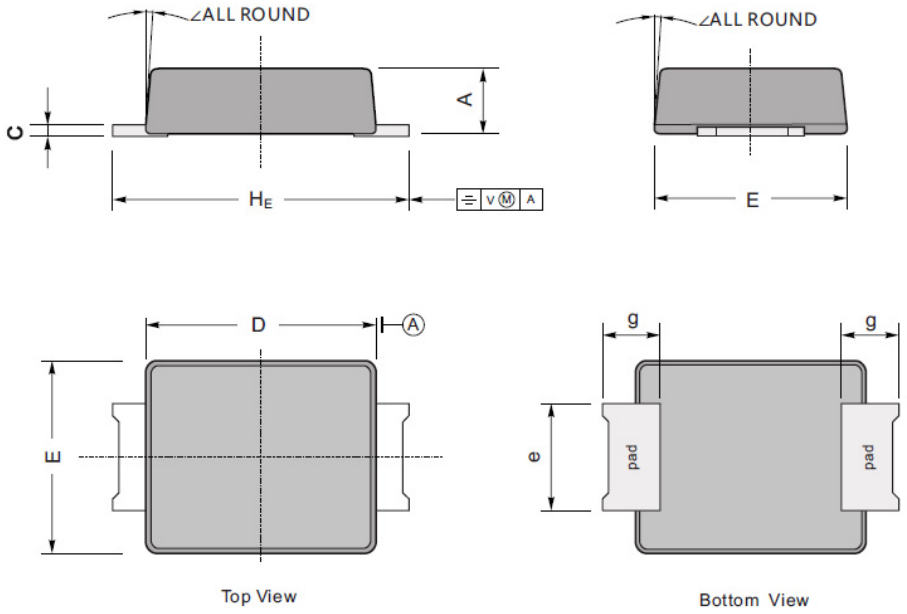


Fig.3 Maximum Continuous Power Derating



SMBF Package Outline Dimensions



UNIT		A	C	D	E	H_E	e	g	∠
mm	max	1.3	0.26	4.4	3.7	5.5	2.2	1.0	9°
	min	1.1	0.18	4.2	3.5	5.1	1.9		
mil	max	51	10	173	146	216	86	40	
	min	43	7	165	138	200	75		