

ZENER DIODES

V_z : 3.3 - 240 Volts

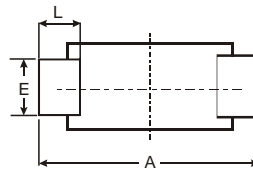
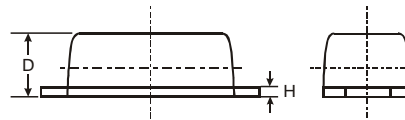
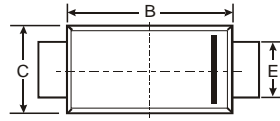
P_D : 1.5 Watts

Features

- Complete Voltage Range 3.3 to 240 Volts
- High peak reverse power dissipation
- High reliability
- Low leakage current

Mechanical Data

- Case: SMAF, Plastic
- Terminals: Solder plated, solderable per MIL-STD, Method2026
- Polarity : Color band denotes cathode end
- Weight: 0.0011 ounces , 0.0328 grams



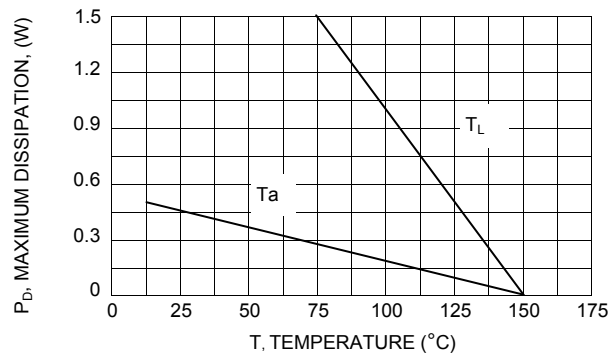
SMAF			
Dim	Min	Max	Typ
A	4.75	4.85	4.80
B	3.68	3.72	3.70
C	2.57	2.63	2.60
D	0.097	1.03	1.00
E	1.38	1.42	1.40
H	0.13	0.17	0.15
L	0.63	0.67	0.65
All Dimensions in mm			

MAXIMUM RATINGS

Rating at 25 °C ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
DC Power Dissipation @ $T_L = 75\text{ °C}$	P_D	1.5	W
Measured zero lead length(1" square copper pad, FR-4 board) Derate above 75 °C		20	mW/°C
Thermal Resistance Junction to Lead	$R_{\theta JL}$	50	°C/W
DC Power Dissipation @ $T_a = 25\text{ °C}$	P_D	0.5	W
(FR-4 board) Derate above 25 °C		4.0	mW/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	250	°C/W
Maximum Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.2	V
Operating Junction and Storage Temperature Range	T_J, T_{STG}	- 65 to + 150	°C

Fig. 1 POWER TEMPERATURE DERATING CURVE



ELECTRICAL CHARACTERISTICS Rating at 25 °C ambient temperature unless otherwise specified

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)
SMAF5913B	3.3	113.6	10	500	1.0	100	1.0	454
SMAF5914B	3.6	104.2	9.0	500	1.0	75	1.0	416
SMAF5915B	3.9	96.1	7.5	500	1.0	25	1.0	384
SMAF5916B	4.3	87.2	6.0	500	1.0	5.0	1.0	348
SMAF5917B	4.7	79.8	5.0	500	1.0	5.0	1.5	319
SMAF5918B	5.1	73.5	4.0	350	1.0	5.0	2.0	294
SMAF5919B	5.6	66.9	2.0	250	1.0	5.0	3.0	267
SMAF5920B	6.2	60.5	2.0	200	1.0	5.0	4.0	241
SMAF5921B	6.8	55.1	2.5	200	1.0	50	5.2	220
SMAF5922B	7.5	50.0	3.0	400	0.5	50	6.0	200
SMAF5923B	8.2	45.7	3.5	400	0.5	50	6.5	182
SMAF5924B	9.1	41.2	4.0	500	0.5	50	7.0	164
SMAF5925B	10	37.5	4.5	500	0.25	50	8.0	150
SMAF5926B	11	34.1	5.5	550	0.25	50	8.4	136
SMAF5927B	12	31.2	6.5	550	0.25	1.0	9.1	125
SMAF5928B	13	28.8	7.0	550	0.25	1.0	9.9	115
SMAF5929B	15	25.0	9.0	600	0.25	1.0	11.4	100
SMAF5930B	16	23.4	10	600	0.25	1.0	12.2	93
SMAF5931B	18	20.8	12	650	0.25	1.0	13.7	83
SMAF5932B	20	18.7	14	650	0.25	1.0	15.2	75
SMAF5933B	22	17.0	17.5	650	0.25	1.0	16.7	68
SMAF5934B	24	15.6	19	700	0.25	1.0	18.2	62
SMAF5935B	27	13.9	23	700	0.25	1.0	20.6	55
SMAF5936B	30	12.5	26	750	0.25	1.0	22.8	50
SMAF5937B	33	11.4	33	800	0.25	1.0	25.1	45
SMAF5938B	36	10.4	38	850	0.25	1.0	27.4	41
SMAF5939B	39	9.6	45	900	0.25	1.0	29.7	38
SMAF5940B	43	8.7	53	950	0.25	1.0	32.7	34
SMAF5941B	47	8.0	67	1000	0.25	1.0	35.8	31
SMAF5942B	51	7.3	70	1100	0.25	1.0	38.8	29
SMAF5943B	56	6.7	86	1300	0.25	1.0	42.6	26
SMAF5944B	62	6.0	100	1500	0.25	1.0	47.1	24
SMAF5945B	68	5.5	120	1700	0.25	1.0	51.7	22
SMAF5946B	75	5.0	140	2000	0.25	1.0	56.0	20
SMAF5947B	82	4.6	160	2500	0.25	1.0	62.2	18
SMAF5948B	91	4.1	200	3000	0.25	1.0	69.2	16
SMAF5949B	100	3.7	250	3100	0.25	1.0	76.0	15
SMAF5950B	110	3.4	300	4000	0.25	1.0	83.6	13
SMAF5951B	120	3.1	380	4500	0.25	1.0	91.2	12
SMAF5952B	130	2.9	450	5000	0.25	1.0	98.8	11
SMAF5953B	150	2.5	600	6000	0.25	1.0	114.0	10
SMAF5954B	160	2.3	700	6500	0.25	1.0	121.6	9.0
SMAF5955B	180	2.1	900	7000	0.25	1.0	136.8	8.0
SMAF5956B	200	1.9	1200	8000	0.25	1.0	152.0	7.0
SMAF5957B	240	1.5	1600	9000	0.25	1.0	182.4	6.0

Note :

(1) Suffix " B " indicates ± 5% tolerance suffix " A " indicates ± 10% tolerance.