



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SMAF4728A
THRU
SMAF4777A

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT ZENER DIODES

VOLTAGE RANGE - 3.3 to 330 Volts

POWER - 1.0 Watt

FEATURES

- * Voltage Range: 3.3V to 330V
- * Low zener impedance
- * Low regulation factor
- * High reliability
- * Glass passivated junction

MECHANICAL DATA

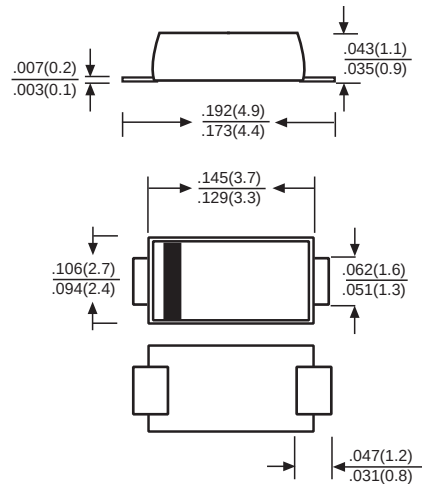
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- * Polarity: As marked
- * Mounting position: Any
- * Weight: 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



SMAFL



Dimensions in inches and (millimeters)

	SYMBOL	VALUE	UNITS
Maximum Power Dissipation @T _L =75°C (Note 1)	P _{tot}	1.0	W
Maximum forward voltage at I _F =200mA	V _F	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air	R _{θJA}	170	°C/W
Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

NOTE: Suffix "A" indicates Zener Voltage Tolerance ± 5%

Fig. 1
POWER TEMPERATURE
DERATING CURVE

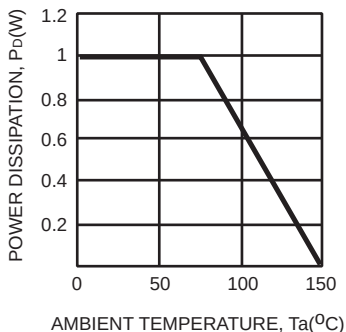
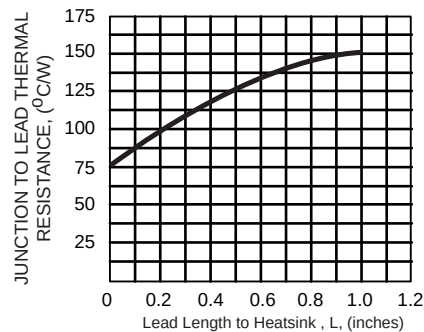


Fig. 2
TYPICAL THERMAL RESISTANCE
VERSUS LEAD LENGTH



RATING AND CHARACTERISTIC CURVES (SMAF4728A THRU SMAF4777A)

TYPE	Nominal Zener Voltage	Zener Test Current	Maximum Zener Impedance		IZK	Maximum Reverse Leakage Current	
	VZ@IZT	IZT	ZZT@IZT	ZZT@IZK		IR	@VR
	Volts	mA	Ohms	Ohms		μA	Volts
SMAF4728A	3.3	76	10	400	1.0	100	1.0
SMAF4729A	3.6	69	10	400	1.0	100	1.0
SMAF4730A	3.9	64	9.0	400	1.0	50	1.0
SMAF4731A	4.3	58	9.0	400	1.0	10	1.0
SMAF4732A	4.7	53	8.0	500	1.0	10	1.0
SMAF4733A	5.1	49	7.0	550	1.0	10	1.0
SMAF4734A	5.6	45	5.0	600	1.0	10	2.0
SMAF4735A	6.2	41	2.0	700	1.0	10	3.0
SMAF4736A	6.8	37	3.5	700	1.0	5.0	4.0
SMAF4737A	7.5	34	4.0	700	0.5	5.0	5.0
SMAF4738A	8.2	31	4.5	700	0.5	5.0	6.0
SMAF4739A	9.1	28	5.0	700	0.5	0.5	7.0
SMAF4740A	10	25	7.0	700	0.25	0.5	7.6
SMAF4741A	11	23	8.0	700	0.25	0.1	8.4
SMAF4742A	12	21	9.0	700	0.25	0.1	9.1
SMAF4743A	13	19	10	700	0.25	0.1	9.9
SMAF4744A	15	17	14	700	0.25	0.1	11.4
SMAF4745A	16	15.5	16	700	0.25	0.1	12.2
SMAF4746A	18	14	20	750	0.25	0.1	13.7
SMAF4747A	20	12.5	22	750	0.25	0.1	15.2
SMAF4748A	22	11.5	23	750	0.25	0.1	16.7
SMAF4749A	24	10.5	25	750	0.25	0.1	18.2
SMAF4750A	27	9.5	35	750	0.25	0.1	20.6
SMAF4751A	30	8.5	40	1000	0.25	0.1	22.8
SMAF4752A	33	7.5	45	1000	0.25	0.1	25.1
SMAF4753A	36	7.0	50	1000	0.25	0.1	27.4
SMAF4754A	39	6.5	60	1000	0.25	0.1	29.7
SMAF4755A	43	6.0	70	1500	0.25	0.1	32.7
SMAF4756A	47	5.5	80	1500	0.25	0.1	35.8
SMAF4757A	51	5.0	95	1500	0.25	0.1	38.8
SMAF4758A	56	4.5	110	2000	0.25	0.1	42.6
SMAF4759A	62	4.0	125	2000	0.25	0.1	47.1
SMAF4760A	68	3.7	150	2000	0.25	0.1	51.7
SMAF4761A	75	3.3	175	2000	0.25	0.1	56.0
SMAF4762A	82	3.0	200	2000	0.25	0.1	62.2
SMAF4763A	91	2.8	250	2000	0.25	0.1	69.2
SMAF4764A	100	2.5	350	2000	0.25	0.1	76.0
SMAF4765A	110	2.3	450	4000	0.25	0.1	83.6
SMAF4766A	120	2.0	550	4500	0.25	0.1	91.2
SMAF4767A	130	1.9	700	5000	0.25	0.1	98.8
SMAF4768A	150	1.7	1000	6000	0.25	0.1	114.0
SMAF4769A	160	1.6	1100	6500	0.25	0.1	121.6
SMAF4770A	180	1.4	1200	7000	0.25	0.1	136.8
SMAF4771A	200	1.2	1900	9990	0.25	0.1	152.0
SMAF4772A	220	1.0	1600	8000	0.25	0.1	167.2
SMAF4773A	240	0.9	1800	8500	0.25	0.1	182.4
SMAF4774A	250	0.9	2000	9000	0.25	0.1	190.4
SMAF4775A	270	0.8	2100	9000	0.25	0.1	205.0
SMAF4776A	300	0.8	2300	9500	0.25	0.1	228.0
SMAF4777A	330	0.7	2500	9500	0.25	0.1	250.2

NOTE: Standard Zener Voltage Tolerance $\pm 5\%$



DC COMPONENTS CO., LTD.