

ZENER DIODES

FEATURES

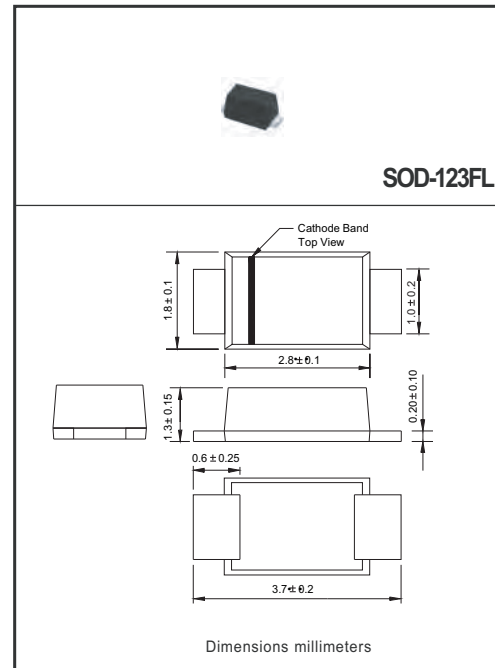
- * Silicon Planar Power Zener Diodes
- * For use in stabilizing and clipping circuits with high power rating.
- * These diodes are also available in the MELF case with type designation ZM4728 thru ZM4764
- * P/N suffix V means AEC-Q101 qualified, e.g:SMF4734AV
- * P/N suffix V means Halogen-free

MECHANICAL DATA

- * Case:SOD-123FL molded plastic body
- * Mounting position: Any
- * Weight: 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Resistive or inductive load.



MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	VALUE	UNITS
Power Dissipation at Tamb = 25 °C	P _{tot}	1.0	Watts
ESD Voltage per IEC61000-4-2(Air)	V _{ESD}	±30	KV
ESD Voltage per IEC61000-4-2(Contact)	V _{ESD}	±30	KV
Junction Temperature	T _J	-65 to + 150	°C
Storage Temperature Range	T _{STG}	-65 to + 150	°C

ELECTRICAL CHARACTERISTICS(@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	VALUE	UNITS
Maximum Instantaneous Forward Voltage at 0.2A DC	V _F	1.2	Volts
Maximum Thermal Resistance Junction to Ambient Air(NOTES 1)	R θ J A	170	°C/W

NOTES : 1. Valid provided that electrodes at a distance of 10mm from case are kept at ambient temperature

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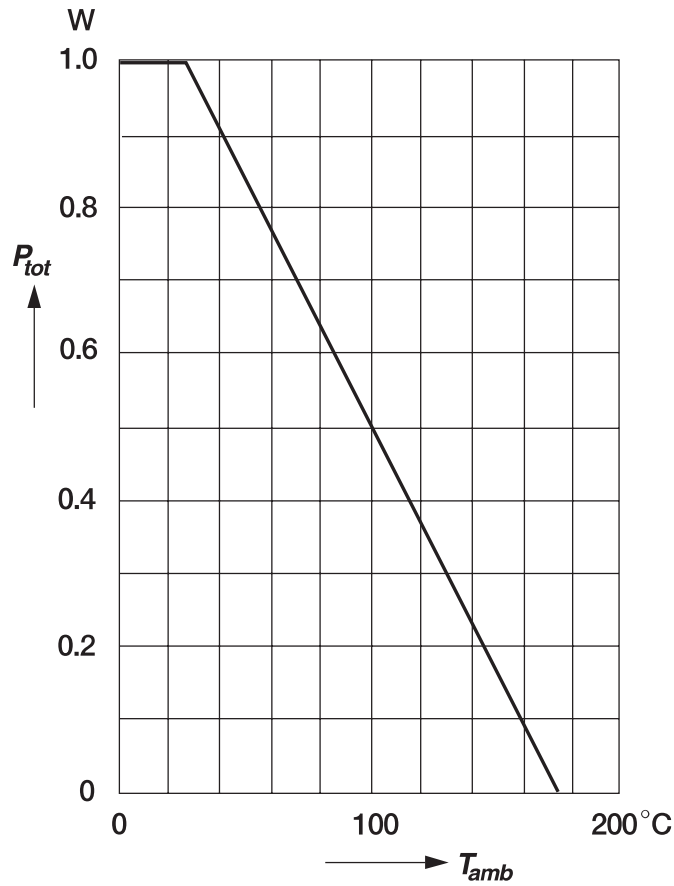
ELECTRICAL CHARACTERISTICS Ratings at 25°C ambient temperature unless otherwise specified.

Type	Nominal Zener voltage ⁽³⁾ at I _{ZT} V _Z V	Test current I _{ZT} mA	Maximum Zener impedance ⁽¹⁾			Maximum reverse leakage current		Surge current at T _A = 25°C I _R mA	Maximum regulator current ⁽²⁾ I _{ZM} mA	Device Marking Code
			Z _{ZT} at I _{ZT} Ω	Z _{ZK} Ω	at I _{ZK} mA	I _R μA	at V _R V			
SMF4734A	5.6	41	2.0	700	1.0	10	3.0	730	146	34A
SMF4735A	6.2	41	2.0	700	1.0	10	3.0	730	146	35A
SMF4736A	6.8	37	3.5	700	1.0	10	4.0	660	133	36A
SMF4737A	7.5	34	4.0	700	0.5	10	5.0	605	121	37A
SMF4738A	8.2	31	4.5	700	0.5	10	6.0	550	110	38A
SMF4739A	9.1	28	5.0	700	0.5	10	7.0	500	100	39A
SMF4740A	10	25	7.0	700	0.25	10	7.6	454	91	40A
SMF4741A	11	23	8.0	700	0.25	5	8.4	414	83	41A
SMF4742A	12	21	9.0	700	0.25	5	9.1	380	76	42A
SMF4743A	13	19	10	700	0.25	5	9.9	344	69	43A
SMF4744A	15	17	14	700	0.25	5	11.4	304	61	44A
SMF4745A	16	15.5	16	700	0.25	5	12.2	285	57	45A
SMF4746A	18	14	20	700	0.25	5	13.7	250	50	46A
SMF4747A	20	12.5	22	750	0.25	5	15.2	225	45	47A
SMF4748A	22	11.5	23	750	0.25	5	16.7	205	41	48A
SMF4749A	24	10.5	25	750	0.25	5	18.2	190	38	49A
SMF4750A	27	9.5	35	750	0.25	5	20.6	170	34	50A
SMF4751A	30	8.5	40	1000	0.25	5	22.8	150	30	51A
SMF4752A	33	7.5	45	1000	0.25	5	25.1	135	27	52A
SMF4753A	36	7.0	50	1000	0.25	5	27.4	125	25	53A
SMF4754A	39	6.5	60	1000	0.25	5	29.7	115	23	54A
SMF4755A	43	6.0	70	1500	0.25	5	32.7	110	22	55A
SMF4756A	47	5.5	80	1500	0.25	5	35.8	95	19	56A
SMF4757A	51	5.0	95	1500	0.25	5	38.8	90	18	57A
SMF4758A	56	4.5	110	2000	0.25	5	42.6	80	16	58A
SMF4759A	62	4.0	125	2000	0.25	5	47.1	70	14	59A
SMF4760A	68	3.7	150	2000	0.25	5	51.7	65	13	60A
SMF4761A	75	3.3	175	2000	0.25	5	56.0	60	12	61A
SMF4762A	82	3.0	200	3000	0.25	5	62.2	55	11	62A
SMF4763A	91	2.8	250	3000	0.25	5	69.2	50	10	63A
SMF4764A	100	2.5	350	3000	0.25	5	76.0	45	9	64A
SMF4765A	110	2.3	450	4000	0.25	5	83.6	40	8.6	65A
SMF4766A	120	2.0	550	4500	0.25	5	91.2	37	7.8	66A
SMF4767A	130	1.9	700	5000	0.25	5	98.8	34	7.0	67A
SMF4768A	150	1.7	1000	6000	0.25	5	114.0	30	6.4	68A
SMF4769A	160	1.6	1100	6500	0.25	5	121.6	28	5.8	69A
SMF4770A	180	1.4	1200	7000	0.25	5	136.8	25	5.2	70A
SMF4771A	200	1.2	1400	7500	0.25	5	152.0	22	4.7	71A

NOTES:

- (1) The Zener impedance is derived from the 1KHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units
- (2) Valid provided that electrodes at a distance of 10mm from case are kept at ambient temperature
- (3) Measured under thermal equilibrium and DC test conditions
- (4) Standard Zener voltage tolerance is ±10%. Add suffix "A" for ±5% tolerance. Other Zener voltages and tolerances are available upon request.

RATING AND CHARACTERISTICS CURVES (SMF4734AV THRU SMF4771AV)



Admissible power dissipation versus ambient temperature

Valid provided that leads are kept at ambient
temperature at a distance of 10 mm from case

PACKAGING OF DIODE AND BRIDGE RECTIFIERS

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
SOD-123F/ SOD-123FL	-W	3,000	15,000	---	---	178	390*205*31	120,000	6.964

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