RECTRON SEMICONDUCTOR
TECHNICAL SPECIFICATION

SMF4734A THRU SMF4771A

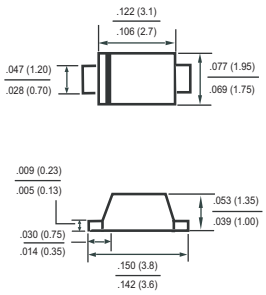
ZENER DIODES

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

MECHANICAL DATA
* Case:SOD-123F molded plastic body
* Mounting position: Any
* Weight: 0.018 gram



SOD-123F



Dimensions in inches and (millimeters)

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	Ptot	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)	RθJA	170	°C/W

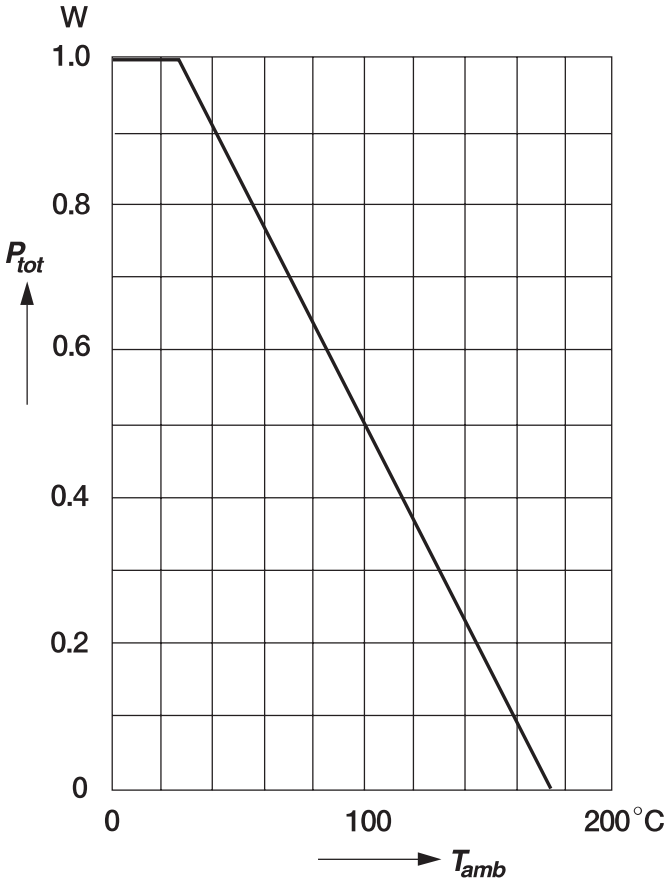
NOTES : 1. Valid provided that electrodes at a distance of 10mm from case are kept at ambient temperature

2025-01/61
REV:F

Part Number	Device Marking Code	Nominal Zener Voltage @I_T			I_{ZT}(mA)	Maximum Zener Impedance			Maximum Reverse Leakage Current		Surge current atTA=25 ℃ IR MA	Maximum DC Zener Current
		$V_{Z\,AVE.}$(V)	$V_{Z\,MIN.}$(V)	$V_{Z\,MAX.}$(V)		$Z_{ZT\,MAX.}$(Ω) @I_{ZT}	$Z_{ZK\,MAX.}$(Ω) @I_{ZK}	I_{ZK}(mA)	I_R(uA) @V_R	V_R(V)		I_{ZM} (mA)
SMF4734A	34A	5.6	5.32	5.88	41.0	2.0	700	1.00	10	3.0	730.0	146.0
SMF4735A	35A	6.2	5.89	6.51	41.0	2.0	700	1.00	10	3.0	730.0	146.0
SMF4736A	36A	6.8	6.46	7.14	37.0	3.5	700	1.00	10	4.0	660.0	133.0
SMF4737A	37A	7.5	7.13	7.88	34.0	4.0	700	0.50	10	5.0	605.0	121.0
SMF4738A	38A	8.2	7.79	8.61	31.0	4.5	700	0.50	10	6.0	550.0	110.0
SMF4739A	39A	9.1	8.65	9.56	28.0	5.0	700	0.50	10	7.0	500.0	100.0
SMF4740A	40A	10.0	9.50	10.50	25.0	7.0	700	0.25	10	7.6	454.0	91.0
SMF4741A	41A	11.0	10.45	11.55	23.0	8.0	700	0.25	5.0	8.4	414.0	83.0
SMF4742A	42A	12.0	11.40	12.60	21.0	9.0	700	0.25	5.0	9.1	380.0	76.0
SMF4743A	43A	13.0	12.35	13.65	19.0	10.0	700	0.25	5.0	9.9	344.0	69.0
SMF4744A	44A	15.0	14.25	15.75	17.0	14.0	700	0.25	5.0	11.4	304.0	61.0
SMF4745A	45A	16.0	15.20	16.80	15.5	16.0	700	0.25	5.0	12.2	285.0	57.0
SMF4746A	46A	18.0	17.10	18.90	14.0	20.0	700	0.25	5.0	13.7	250.0	50.0
SMF4747A	47A	20.0	19.00	21.00	12.5	22.0	750	0.25	5.0	15.2	225.0	45.0
SMF4748A	48A	22.0	20.90	23.10	11.5	23.0	750	0.25	5.0	16.7	205.0	41.0
SMF4749A	49A	24.0	22.80	25.20	10.5	25.0	750	0.25	5.0	18.2	190.0	38.0
SMF4750A	50A	27.0	25.65	28.35	9.5	35.0	750	0.25	5.0	20.6	170.0	34.0
SMF4751A	51A	30.0	28.50	31.50	8.5	40.0	1000	0.25	1.0	22.8	150.0	30.0
SMF4752A	52A	33.0	31.35	34.65	7.5	45.0	1000	0.25	1.0	25.1	135.0	27.0
SMF4753A	53A	36.0	34.20	37.80	7.0	50.0	1000	0.25	1.0	27.4	125.0	25.0
SMF4754A	54A	39.0	37.05	40.95	6.5	60.0	1000	0.25	1.0	29.7	115.0	23.0
SMF4755A	55A	43.0	40.85	45.15	6.0	70.0	1500	0.25	1.0	32.7	110.0	22.0
SMF4756A	56A	47.0	44.65	49.35	5.5	80.0	1500	0.25	1.0	35.8	95.0	19.0
SMF4757A	57A	51.0	48.45	53.55	5.0	95.0	1500	0.25	1.0	38.8	90.0	18.0
SMF4758A	58A	56.0	53.20	58.80	4.5	110.0	2000	0.25	1.0	42.6	80.0	16.0
SMF4759A	59A	62.0	58.90	65.10	4.0	125.0	2000	0.25	1.0	47.1	70.0	14.0
SMF4760A	60A	68.0	64.60	71.40	3.7	150.0	2000	0.25	1.0	51.7	65.0	13.0
SMF4761A	61A	75.0	71.25	78.75	3.3	175.0	2000	0.25	1.0	56.0	60.0	12.0
SMF4762A	62A	82.0	77.90	86.10	3.0	200.0	3000	0.25	1.0	62.2	55.0	11.0
SMF4763A	63A	91.0	86.45	95.55	2.8	250.0	3000	0.25	1.0	69.2	50.0	10.0
SMF4764A	64A	100.0	95.00	105.00	2.5	350.0	3000	0.25	1.0	76.0	45.0	9.0
SMF4765A	65A	110.0	104.50	115.50	2.3	450.0	4000	0.25	1.0	83.6	40.0	8.6
SMF4766A	66A	120.0	114.00	126.00	2.0	550.0	4500	0.25	1.0	91.2	37.0	7.8
SMF4767A	67A	130.0	123.50	136.50	1.9	700.0	5000	0.25	1.0	98.8	34.0	7.0
SMF4768A	68A	150.0	142.50	157.50	1.7	1000.0	6000	0.25	1.0	114.0	30.0	6.4
SMF4769A	69A	160.0	152.00	168.00	1.6	1100.0	6500	0.25	1.0	121.6	28.0	5.8
SMF4770A	70A	180.0	171.00	189.00	1.4	1200.0	7000	0.25	1.0	136.8	25.0	5.2
SMF4771A	71A	200.0	190.00	210.00	1.2	1400.0	7500	0.25	1.0	152.0	22.0	4.7

Notes: The type number listed have a standard tolerance on the nominal zener voltage of ± 5%.

RATING AND CHARACTERISTICS CURVES (SMF4734A THRU SMF4771A)



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	-T	3,000	15,000	---	---	178	390*205*31	120,000	6.964

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