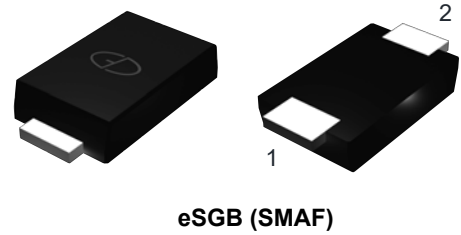


# GSM4728A thru GSM4777A

Surface Mount Zener Diodes  
 Vz Range: 3.3V to 330V Power Dissipation: 1W

## Features

- High peak reverse power dissipation
- Low leakage current



## Mechanical Data

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026



Schematic Diagram



## Absolute Maximum Ratings (T<sub>A</sub>=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Power Dissipation at T <sub>L</sub> =75°C	P <sub>tot</sub>	1	W
Thermal Resistance, Junction to Lead <sup>1</sup>	R <sub>θJL</sub>	75	°C/W
Operation Junction Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

Notes:

1. Device mounted on FR-4 substrate PC board, 2oz copper, with 1-inch square copper plate in still air.

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## **Electrical Characteristics** (T<sub>A</sub>=25°C unless otherwise noted, V<sub>F</sub> max: 1.2V @ I<sub>F</sub>=200mA)

Part Number	Zener Voltage Range <sup>1</sup>			Zener Impedance		Reverse Current		Admissible Zener Current
	V <sub>ZT</sub> @ I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	I <sub>R</sub>	@ V <sub>R</sub>	
	Min.(V)	Nom.(V)	Max.(V)	(mA)	Max. (Ω)	Max. (μA)	(V)	I <sub>ZM</sub> (mA)
GSM4728A	3.10	3.3	3.50	75	10	100	1	285
GSM4729A	3.40	3.6	3.80	69	10	100	1	263
GSM4730A	3.70	3.9	4.10	64	9.0	50	1	243
GSM4731A	4.06	4.3	4.56	58	9.0	25	1	219
GSM4732A	4.50	4.7	4.93	53	8.0	10	1	203
GSM4733A	4.84	5.1	5.36	49	7.0	10	1	186
GSM4734A	5.32	5.6	5.92	45	5.0	10	2	170
GSM4735A	5.86	6.2	6.51	41	2.0	10	3	154
GSM4736A	6.46	6.8	7.18	37	3.5	10	4	140
GSM4737A	7.12	7.5	7.88	34	4.0	10	5	127
GSM4738A	7.79	8.2	8.67	31	4.5	10	6	116
GSM4739A	8.60	9.1	9.59	28	5.0	10	7	104
GSM4740A	9.50	10	10.5	25	7.0	10	7	95
GSM4741A	10.4	11	11.6	23	8.0	5	8	86
GSM4742A	11.4	12	12.6	21	9.0	5	9	79
GSM4743A	12.4	13	14.1	19	10	5	10	71
GSM4744A	14.25	15	15.75	17	14	5	11	61
GSM4745A	15.2	16	17.1	16	16	5	12	58
GSM4746A	16.8	18	19.2	14	20	5	13	52
GSM4747A	19.0	20	21.2	13	22	5	15	47
GSM4748A	20.8	22	23.3	12	23	5	17	43
GSM4749A	22.8	24	25.2	11	25	5	18	38
GSM4750A	25.3	27	28.9	9.5	35	5	21	35
GSM4751A	28.2	30	32.0	8.5	40	5	23	31
GSM4752A	31.3	33	34.9	7.5	45	5	25	28
GSM4753A	34.2	36	37.9	7.0	50	5	27	26
GSM4754A	37.2	39	41.5	6.5	60	5	30	24
GSM4755A	40.9	43	45.6	6.0	70	1	32	22
GSM4756A	44.9	47	49.8	5.5	80	1	35	20
GSM4757A	48.6	51	54.0	5.0	95	1	38	18
GSM4758A	53.6	56	58.6	4.5	110	1	42	17
GSM4759A	58.9	62	65.6	4.0	125	1	47	15
GSM4760A	64.6	68	71.7	3.7	150	1	52	14
GSM4761A	71.2	75	78.8	3.3	175	1	56	12
GSM4762A	77.9	82	87.0	3.0	200	1	62	11
GSM4763A	86.0	91	96.0	2.8	250	1	69	10
GSM4764A	95.0	100	105	2.5	350	1	76	9.5
GSM4765A	104	110	116	2.3	450	1	84	8.6
GSM4766A	114	120	127	2.0	550	1	91	7.8
GSM4767A	125	135	142	1.9	700	1	100	7.0
GSM4768A	140	150	157	1.7	900	1	110	6.3
GSM4769A	155	165	172	1.6	1100	1	120	5.8
GSM4770A	170	180	191	1.4	1200	1	135	5.2
GSM4771A	189	200	211	1.2	1400	1	150	4.7
GSM4772A	209	220	231	1.0	1600	1	165	4.3
GSM4773A	229	240	251	1.0	1800	1	180	3.9
GSM4774A	249	260	271	1.0	2000	1	190	3.7
GSM4775A	269	280	291	1.0	2100	1	205	3.4
GSM4776A	289	300	315	1.0	2300	1	230	3.1
GSM4777A	313	330	346	1.0	2500	1	250	2.8

Notes:

1. V<sub>ZT</sub> is tested with pulses (20 ms).

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## Electrical Characteristics Curves

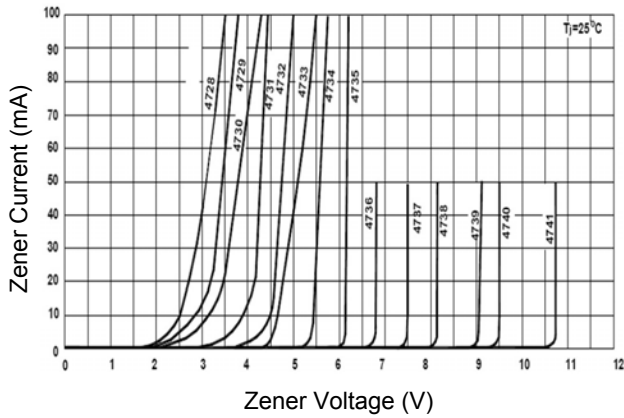


Figure 1. Zener Characteristics Curve

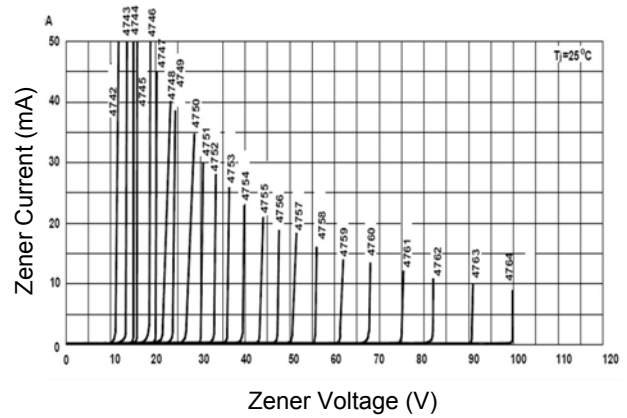


Figure 2. Zener Characteristics Curve

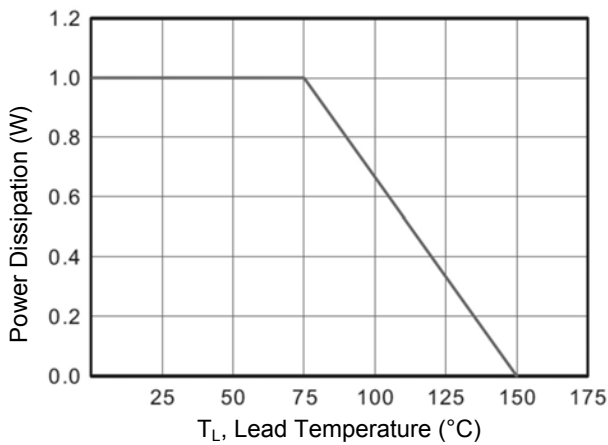


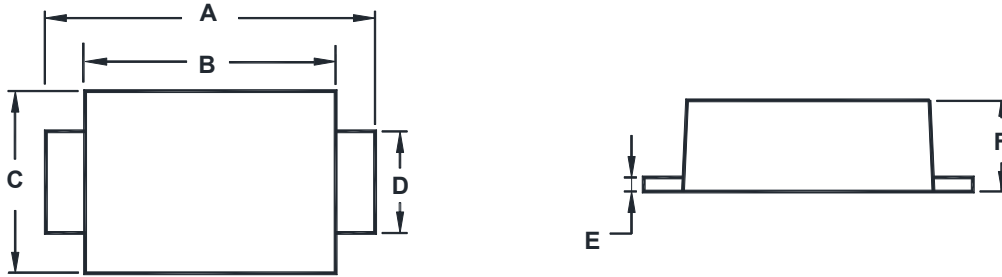
Figure 3. Power Derating Curve

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## Package Outline Dimensions eSGB (SMAF)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	4.400	4.900	0.173	0.193
B	3.300	3.700	0.130	0.146
C	2.400	2.800	0.094	0.110
D	1.300	1.600	0.051	0.063
E	0.120	0.200	0.005	0.008
F	0.900	1.100	0.035	0.043

## Recommended Pad Layout

