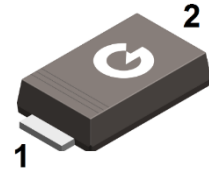


Features

- Silicon planar based design for zener die
- Low leakage current
- Low profile surface mountable package
- High temperature solderability for terminals: 260°C @ 10s
- RoHS compliant with Halogen-free

HF



SMAF

Mechanical Data

- Case: SMAF
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
SMAF4729- SMAF4764	SMAF	10000 pcs / Tape & Reel	see E. Characteristics

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation ($T_A = 25^\circ\text{C}$)	P_D	1	W
Thermal Resistance Junction-to-Air ^{*1}	$R_{\theta JA}$	80	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case ^{*1}	$R_{\theta JC}$	40	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead ^{*1}	$R_{\theta JL}$	10	$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 ~ +150	$^\circ\text{C}$

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper

Electrical Characteristics (@ T_A = 25°C unless otherwise specified)

Type	Marking Code	Zener voltage			Test current I _{zT}	Dynamic impedance Z _{zT}	Knee impedance Z _{zK}	Knee current I _{zK}	Reverse current	
		V _z			I _{zT}	Z _{zT}	Z _{zK}	I _{zK}	I _R	V _R
		Min.	Typ.	Max.	mA	Ω	Ω	mA	μA	V
SMAF4729	4729	3.40	3.6	3.80	69.0	10.0	400	1.00	100	1.0
SMAF4731	4731	4.09	4.3	4.52	58.0	9.0	400	1.00	10	1.0
SMAF4733	4733	4.85	5.1	5.36	49.0	7.0	550	1.00	10	1.0
SMAF4734	4734	5.32	5.6	5.88	45.0	5.0	600	1.00	10	2.0
SMAF4735	4735	5.89	6.2	6.51	41.0	2.0	700	1.00	10	3.0
SMAF4736	4736	6.46	6.8	7.14	37.0	3.5	700	1.00	10	4.0
SMAF4737	4737	7.13	7.5	7.88	34.0	4.0	700	0.50	10	5.0
SMAF4738	4738	7.79	8.2	8.61	31.0	4.5	700	0.50	10	6.0
SMAF4739	4739	8.65	9.1	9.56	28.0	5.0	700	0.50	10	7.0
SMAF4740	4740	9.50	10	10.50	25.0	7.0	700	0.25	10	7.6
SMAF4741	4741	10.45	11	11.55	23.0	8.0	700	0.25	5	8.4
SMAF4742	4742	11.40	12	12.60	21.0	9.0	700	0.25	5	9.1
SMAF4743	4743	12.35	13	13.65	19.0	10.0	700	0.25	5	9.9
SMAF4744	4744	14.25	15	15.75	17.0	14.0	700	0.25	5	11.4
SMAF4745	4745	15.20	16	16.80	15.5	16.0	700	0.25	5	12.2
SMAF4746	4746	17.10	18	18.90	14.0	20.0	750	0.25	5	13.7
SMAF4747	4747	19.00	20	21.00	12.5	22.0	750	0.25	5	15.2
SMAF4748	4748	20.90	22	23.10	11.5	23.0	750	0.25	5	16.7
SMAF4749	4749	22.80	24	25.20	10.5	25.0	750	0.25	5	18.2
SMAF4750	4750	25.65	27	28.35	9.5	35.0	750	0.25	5	20.6
SMAF4751	4751	28.50	30	31.50	8.5	40.0	1000	0.25	5	22.8
SMAF4752	4752	31.35	33	34.65	7.5	45.0	1000	0.25	5	25.1
SMAF4753	4753	34.20	36	37.80	7.0	50.0	1000	0.25	5	27.4
SMAF4754	4754	37.05	39	40.95	6.5	60.0	1000	0.25	5	29.7
SMAF4755	4755	40.85	43	45.15	6.0	70.0	1500	0.25	5	32.7
SMAF4756	4756	44.65	47	49.35	5.5	80.0	1500	0.25	5	35.8
SMAF4757	4757	48.45	51	53.55	5.0	95.0	1500	0.25	5	38.8
SMAF4758	4758	53.20	56	58.80	4.5	110.0	2000	0.25	5	42.6
SMAF4759	4759	58.90	62	65.10	4.0	125.0	2000	0.25	5	47.1
SMAF4760	4760	64.60	68	71.40	3.7	150.0	2000	0.25	5	51.7
SMAF4761	4761	71.25	75	78.75	3.3	175.0	2000	0.25	5	56.0
SMAF4762	4762	77.90	82	86.10	3.0	200.0	3000	0.25	5	62.2
SMAF4763	4763	86.45	91	95.55	2.8	250.0	3000	0.25	5	69.2
SMAF4764	4764	95.00	100	105.00	2.5	350.0	3000	0.25	5	76.0

TYPICAL CHARACTERISTICS (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

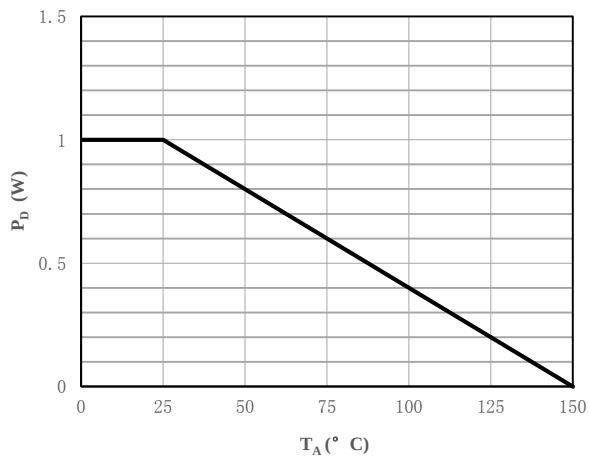


Fig 1 Steady State Power Derating

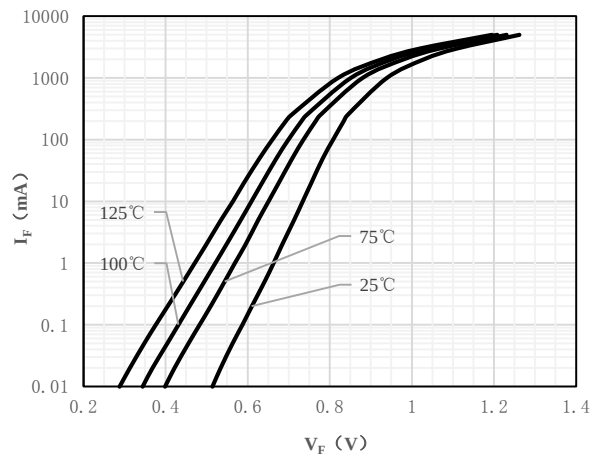


Fig 2 Typical Forward Characteristics

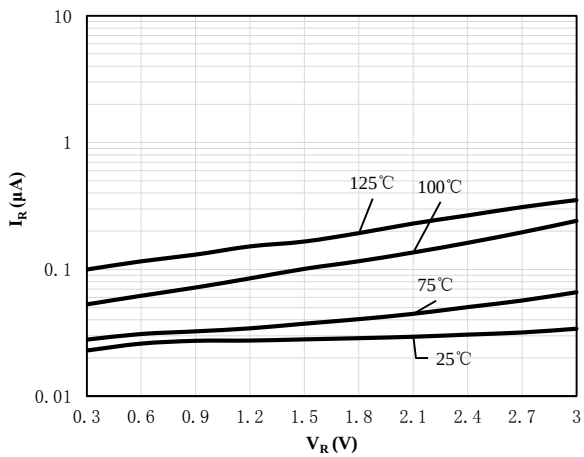


Fig 3 Typical Reverse Characteristic

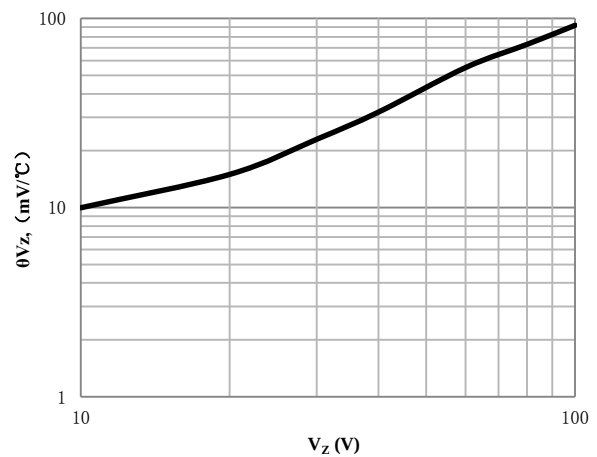
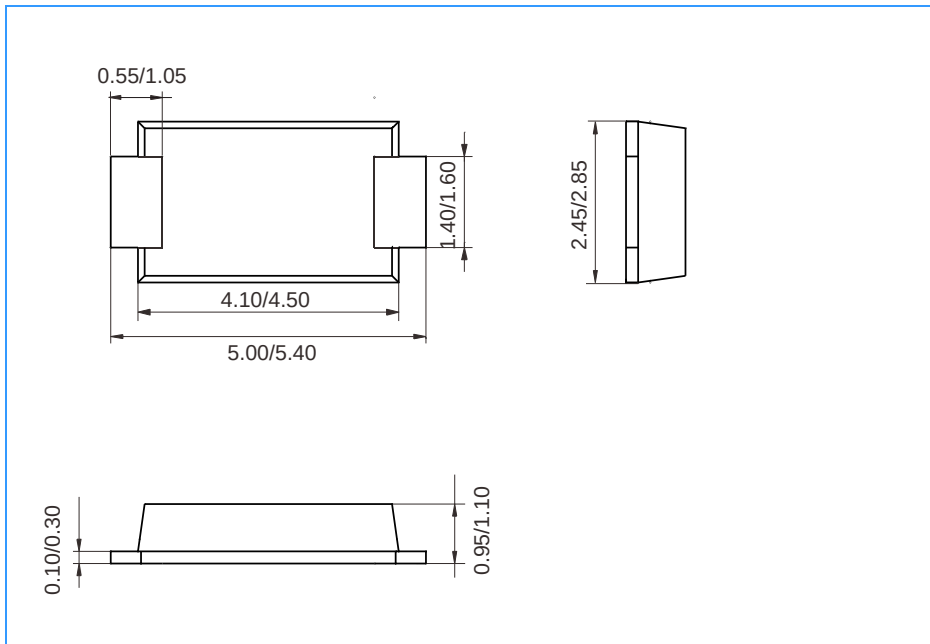


Fig 4 Typical Temperature Coefficients vs. Zener Voltage

Package Outline Dimensions (unit: mm)



Mounting Pad Layout (unit: mm)

