



**THE DATASHEET OF  
1SMAF4745A**



**1SMAF4728A  
THRU  
1SMAF4777A**

**SILICON PLANAR ZENER DIODE**

**FEATURES**

- \* Total power dessepeateon: Max. 1 W
- \* Small plastec package suetable for surface mounted desegn.
- \* Case: SMAF

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode



Top View

Simplified outline SMAF and symbol

**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%.

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

PARAMETER	SYMBOL	VALUE	UNITS
DC Power dissipation at TL = 75 °C(Note 1)	P <sub>D</sub>	1.0	W
Maximum forward voltage at If=200mA	V <sub>F</sub>	1.2	Volts
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150	°C

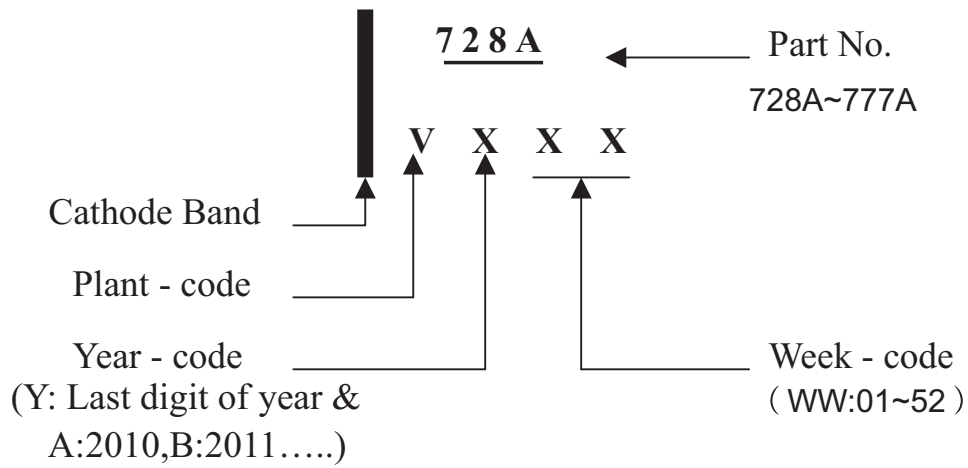
NOTES : 1. TL=Lead temperature at 3/8" (9.5mm)from body

2018-06/61  
REV:0

TYPE	MARKING	Zener voltage Range Vz(V)@Izt			Test current	Dynamic impedance	Maximum Reverse leakage current		Admissibl e zener current
		Min	Nom	Max	Izt(mA)	ZzT(@IzT)	IR	VR	Izm(mA)
		(Volts)	(Volts)	(Volts)		( $\Omega$ )	( $\mu$ A)	(Volts)	
1SMAF4728A	728A	3.1	3.3	3.5	75	10	100	1	285
1SMAF4729A	729A	3.4	3.6	3.8	69	10	100	1	263
1SMAF4730A	730A	3.7	3.9	4.1	64	9	50	1	243
1SMAF4731A	731A	4.06	4.3	4.56	58	9	25	1	219
1SMAF4732A	732A	4.5	4.7	4.93	53	8	10	1	203
1SMAF4733A	733A	4.84	5.1	5.36	49	7	10	1	186
1SMAF4734A	734A	5.32	5.6	5.92	45	5	10	2	170
1SMAF4735A	735A	5.86	6.2	6.51	41	2	10	3	154
1SMAF4736A	736A	6.46	6.8	7.18	37	3.5	10	4	140
1SMAF4737A	737A	7.12	7.5	7.88	34	4	10	5	127
1SMAF4738A	738A	7.79	8.2	8.67	31	4.5	10	6	116
1SMAF4739A	739A	8.6	9.1	9.59	28	5	10	7	104
1SMAF4740A	740A	9.5	10	10.5	25	7	10	7	95
1SMAF4741A	741A	10.4	11	11.6	23	8	5	8	86
1SMAF4742A	742A	11.4	12	12.6	21	9	5	9	79
1SMAF4743A	743A	12.4	13	14.1	19	10	5	10	71
1SMAF4744A	744A	13.8	15	15.8	17	14	5	11	63
1SMAF4745A	745A	15.2	16	17.1	16	16	5	12	58
1SMAF4746A	746A	16.8	18	19.2	14	20	5	13	52
1SMAF4747A	747A	19.0	20	21.2	13	22	5	15	47
1SMAF4748A	748A	20.8	22	23.3	12	23	5	17	43
1SMAF4749A	749A	22.8	24	26.0	11	25	5	18	38
1SMAF4750A	750A	25.3	27	28.9	9.5	35	5	21	35
1SMAF4751A	751A	28.2	30	32.0	8.5	40	5	23	31
1SMAF4752A	752A	31.3	33	34.9	7.5	45	5	25	28
1SMAF4753A	753A	34.2	36	37.9	7.0	50	5	27	26
1SMAF4754A	754A	37.2	39	41.5	6.5	60	5	30	24
1SMAF4755A	755A	40.9	43	45.6	6.0	70	1	32	22
1SMAF4756A	756A	44.9	47	49.8	5.5	80	1	35	20
1SMAF4757A	757A	48.6	51	54.0	5.0	95	1	38	18
1SMAF4758A	758A	53.6	56	58.8	4.5	110	1	42	17
1SMAF4759A	759A	58.9	62	65.6	4.0	125	1	47	15
1SMAF4760A	760A	64.6	68	71.7	3.7	150	1	52	14
1SMAF4761A	761A	71.2	75	78.8	3.3	175	1	56	12
1SMAF4762A	762A	77.9	82	87.0	3.0	200	1	62	11
1SMAF4763A	763A	86.0	91	96.0	2.8	250	1	69	10
1SMAF4764A	764A	95.0	100	105	2.5	350	1	76	9.5
1SMAF4765A	765A	104	110	116	2.3	450	1	84	8.6
1SMAF4766A	766A	114	120	127	2.0	550	1	91	7.8
1SMAF4767A	767A	125	135	142	1.9	700	1	100	7
1SMAF4768A	768A	140	150	157	1.7	900	1	110	6.3
1SMAF4769A	769A	155	165	172	1.6	1100	1	120	5.8
1SMAF4770A	770A	170	180	191	1.4	1200	1	135	5.2
1SMAF4771A	771A	189	200	211	1.2	1400	1	150	4.7
1SMAF4772A	772A	209	220	231	1	1600	1	165	4.3
1SMAF4773A	773A	229	240	251	1	1800	1	180	3.9
1SMAF4774A	774A	249	260	271	1	2000	1	190	3.7
1SMAF4775A	775A	269	280	291	1	2100	1	205	3.4
1SMAF4776A	776A	289	300	315	1	2300	1	230	3.1
1SMAF4777A	777A	313	330	346	1	2500	1	250	2.8



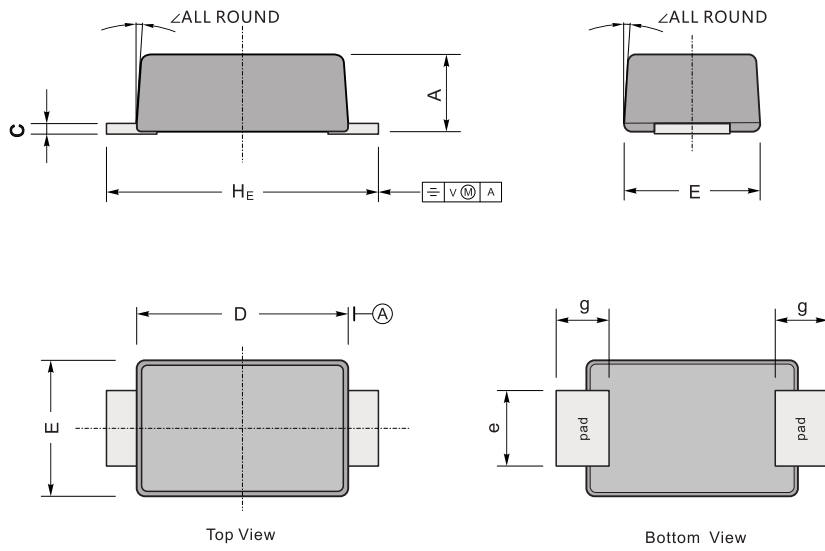
## Marking on the body



# PACKAGE OUTLINE

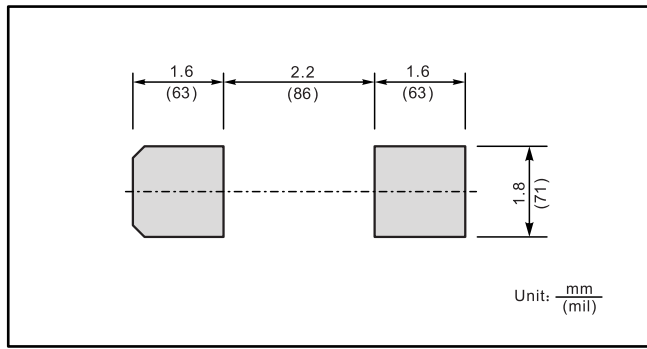
Plastic surface mounted package; 2 leads

SMAF



UNIT		A	C	D	E	e	g	H <sub>E</sub>	$\angle$
mm	max	1.1	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	43	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

## The recommended mounting pad size



## 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)
SMAF	-T	3,000	12,000	---	---	178	390*205*310	96,000	---

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