

Features

- For Surface Mount Applications
- Halogen Free. "Green" Device (Note 1)
- Moisture Sensitivity Level 1
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Maximum Ratings(@ 25°C Unless Otherwise Specified)

Parameter	Symbol	Rating	Unit
DC Power Dissipation at $T_L = 75^\circ\text{C}$	PD	1	W
Maximum Instantaneous Forward Voltage@ $I_F = 200\text{mA}$	V_F	1.2	V
Operating Junction Temperature Range	T_J	-55~150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

Thermal Characteristics(@ 25°C Unless Otherwise Specified)

Parameter	Symbol	Rating	Unit
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$	25	°C/W
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$	120	°C/W

Note:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.
3. Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5 mm x 5 mm) copper pad areas

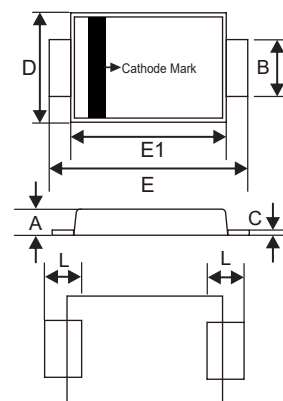
Internal Structure

Description	Simplified outline	Graphic symbol
Uni-directional		

XXXX = Marking code

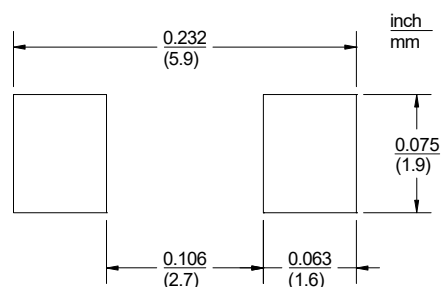
1.0 Watt Zener Diodes 6.2V to 100V

DO-221AC(SMA-FL)



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.035	0.049	0.90	1.25	
B	0.049	0.065	1.25	1.65	
C	0.004	0.016	0.10	0.40	
D	0.089	0.116	2.25	2.95	
E	0.173	0.220	4.40	5.60	
E1	0.126	0.181	3.20	4.60	
L	0.020	0.059	0.50	1.50	

Suggested Solder Pad Layout



Electrical Characteristics @ 25°C Unless Otherwise Specified

Part Number	Nominal Zener Voltage			Test Current	Maximum Dynamic Impedance Resistance			Maximum Reverse leakage Current		Maximu m DC Zener Current	Marking Code
	VZ@IZT				IZT	ZZT @ IZT	ZZK @t IZK	IZK	IR		
	Min(V)	Nom(V)	Max(V)	mA						Ω	
SMAF4735A	5.89	6.2	6.51	41	2	700	1	10	3.0	146	F35A
SMAF4736A	6.46	6.8	7.14	37	3.5	700	1	10	4.0	133	F36A
SMAF4737A	7.13	7.5	7.88	34	4	700	0.5	10	5.0	121	F37A
SMAF4738A	7.79	8.2	8.61	31	4.5	700	0.5	10	6.0	110	F38A
SMAF4739A	8.65	9.1	9.56	28	5	700	0.5	10	7.0	100	F39A
SMAF4740A	9.50	10.0	10.50	25	7	700	0.25	10	7.6	91	F40A
SMAF4741A	10.45	11.0	11.55	23	8	700	0.25	5	8.4	83	F41A
SMAF4742A	11.40	12.0	12.60	21	9	700	0.25	5	9.1	76	F42A
SMAF4743A	12.35	13.0	13.65	19	10	700	0.25	5	9.9	69	F43A
SMAF4744A	14.25	15.0	15.75	17	14	700	0.25	5	11.4	61	F44A
SMAF4745A	15.20	16.0	16.80	15.5	16	700	0.25	5	12.2	57	F45A
SMAF4746A	17.10	18.0	18.90	14.0	20	750	0.25	5	13.7	50	F46A
SMAF4747A	19.00	20.0	21.00	12.5	22	750	0.25	5	15.2	45	F47A
SMAF4748A	20.90	22.0	23.10	11.5	23	750	0.25	5	16.7	41	F48A
SMAF4749A	22.80	24.0	25.20	10.5	25	750	0.25	5	18.2	38	F49A
SMAF4750A	25.65	27.0	28.35	9.5	35	750	0.25	5	20.6	34	F50A
SMAF4751A	28.50	30.0	31.50	8.5	40	1000	0.25	5	22.8	30	F51A
SMAF4752A	31.35	33.0	34.65	7.5	45	1000	0.25	5	25.1	27	F52A
SMAF4753A	34.20	36.0	37.80	7	50	1000	0.25	5	27.4	25	F53A
SMAF4754A	37.05	39.0	40.95	6.5	60	1000	0.25	5	29.7	23	F54A
SMAF4755A	40.85	43.0	45.15	6	70	1500	0.25	5	32.7	22	F55A
SMAF4756A	44.65	47.0	49.35	5.5	80	1500	0.25	5	35.8	19	F56A
SMAF4757A	48.45	51.0	53.55	5	95	1500	0.25	5	38.8	18	F57A
SMAF4758A	53.20	56.0	58.80	4.5	110	2000	0.25	5	42.6	16	F58A
SMAF4759A	58.90	62.0	65.10	4	125	2000	0.25	5	47.1	14	F59A
SMAF4760A	64.60	68.0	71.40	3.7	150	2000	0.25	5	51.7	13	F60A
SMAF4761A	71.25	75.0	78.75	3.3	175	2000	0.25	5	56.0	12	F61A
SMAF4762A	77.90	82.0	86.10	3	200	3000	0.25	5	62.2	11	F62A
SMAF4763A	86.45	91.0	95.55	2.8	250	3000	0.25	5	69.2	10	F63A
SMAF4764A	95.00	100.0	105.00	2.5	350	3000	0.25	5	76.0	9	F64A

Curve Characteristics

Fig. 1 - Pulse Derating Curve

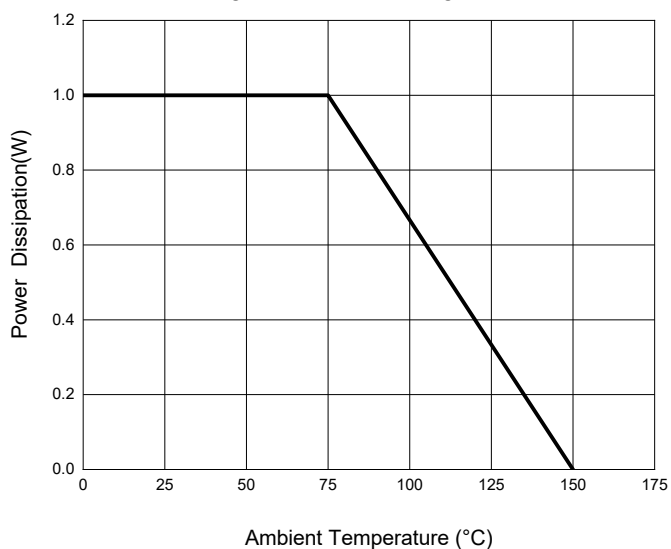


Fig. 2 - Typical Zener Breakdown Characteristics

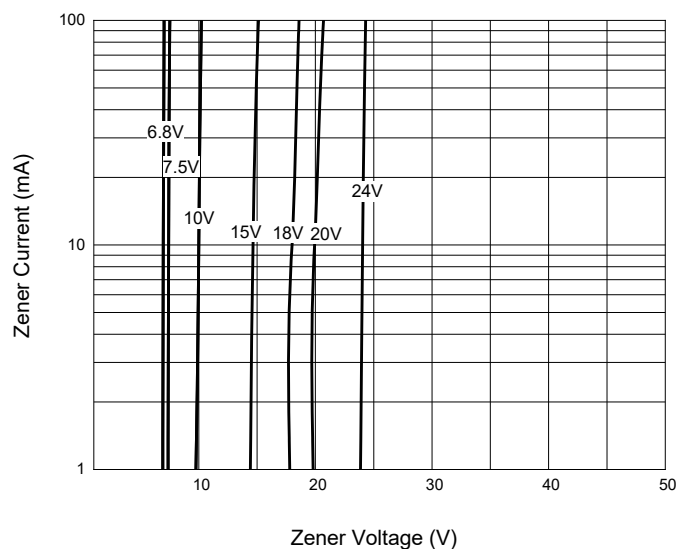


Fig.3- Typical Zener Breakdown Characteristics

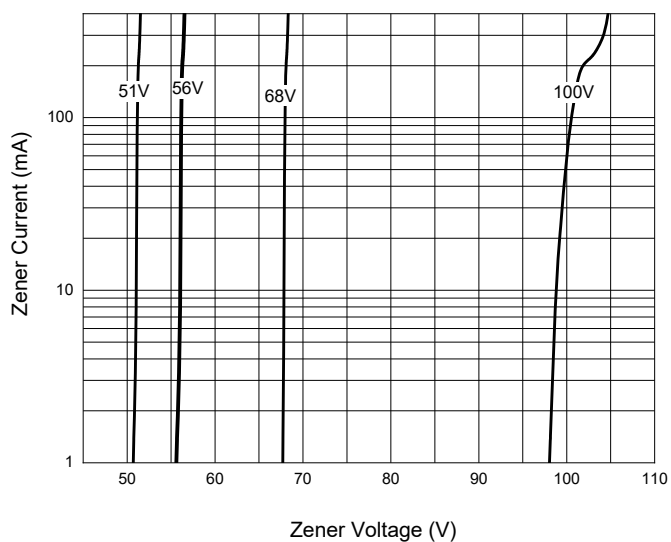
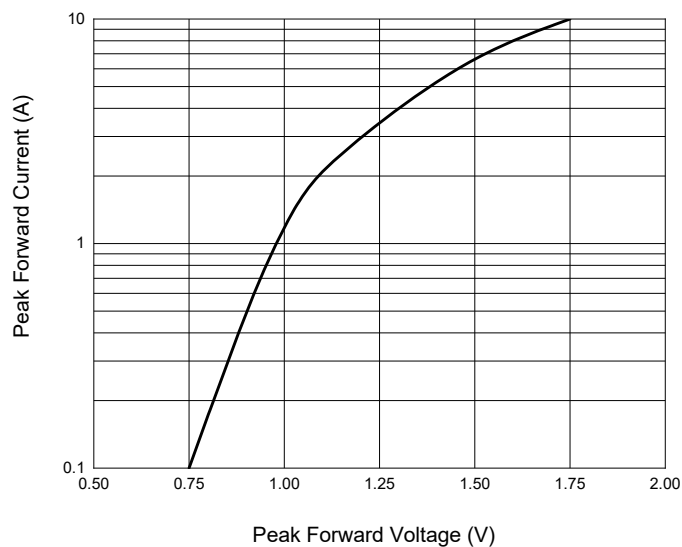


Fig.4- Typical Forward Characteristics



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