



DESCRIPTION

The SODZ5.1A-SH~SODZ200A-SH are available in SOD-123FL Package

ORDERING INFORMATION

Package Type	Part Number	
SOD-123FL	SODZ5.1A-SH	SODZ36A-SH
	SODZ5.6A-SH	SODZ39A-SH
	SODZ6.2A-SH	SODZ43A-SH
	SODZ6.8A-SH	SODZ47A-SH
	SODZ7.5A-SH	SODZ51A-SH
	SODZ8.2A-SH	SODZ56A-SH
	SODZ9.1A-SH	SODZ62A-SH
	SODZ10A-SH	SODZ68A-SH
	SODZ11A-SH	SODZ75A-SH
	SODZ12A-SH	SODZ82A-SH
	SODZ13A-SH	SODZ91A-SH
	SODZ15A-SH	SODZ100A-SH
	SODZ16A-SH	SODZ110A-SH
	SODZ18A-SH	SODZ120A-SH
	SODZ20A-SH	SODZ130A-SH
	SODZ22A-SH	SODZ150A-SH
	SODZ24A-SH	SODZ160A-SH
	SODZ27A-SH	SODZ180A-SH
	SODZ30A-SH	SODZ200A-SH
	SODZ33A-SH	
Note	SPQ: 3,000pcs/Reel	
AiT provides all RoHS Compliant Products		

FEATURES

- 1 W SOD-123FL
- Zener voltage regulator diodes
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Guarding for over voltage protection
- High temperature soldering guaranteed: 260°C/10 seconds at terminals
- Available in SOD-123FL Package

MECHANICAL DATA

Case: JEDEC SOD-123FL/MINI

SMA molded plastic

Terminals: Plated terminals, solderable per

MIL-STD-750, Method 2026

Polarity: Color band denoted cathode except Bipolar

Mounting Position: Any

Weight : Approximated 0.0155 gram

PIN DESCRIPTION





ELECTRICAL CHARACTERISTIC

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	VALUE	Unit
Steady State Power Dissipation at $T_L=75^{\circ}\text{C}$ ^{NOTE1}	$P_{M(AV)}$	1.0	Watts
Z-current	I_Z	P_V/V_Z	mA
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load(JECED Method) ^{NOTE2}	I_{FSM}	40	Amps
Operating and Storage Temperature Range	T_J, T_{STG}	-50 to +150	°C

NOTE1: 8.0mm² (.013mm thick) land areas

NOTE2: 8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.



PRODUCT CHARACTERISTIC

Vz tolerance : ±5%; Tested with pulse tp=40ms; Ta=25°C Vfmax =1.2V @ If = 200mA P=1 W

Type	Zener	Current	A and B Suffix only			Leakage Current		Surge current	Maximum Regulator Current2)	
	Voltage	IzT	ZzT@IzT	Zzk@Izk	Zzk@Izk	IR	VR	IR @ Tamb=25°C	IzM @ Tamb =50°C	
	Vz@LzT									
	Volts	mA	Ohms	Ohms	mA	uA Max	Volts	mA	mA	
SODZ5.1A-SH	5.1	49	7	550	1	100	1.0	890	178	
SODZ5.6A-SH	5.6	45	5	600			2.0	810	164	
SODZ6.2A-SH	6.2	41	2	700			3.0	730	146	
SODZ6.8A-SH	6.8	37	4	1300			4	660	133	
SODZ7.5A-SH	7.5	34	4.5	1300			0.5	5	605	121
SODZ8.2A-SH	8.2	31	5.5	1300			0.5	6	550	110
SODZ9.1A-SH	9.1	28	6	1300			0.5	7	500	100
SODZ10A-SH	10	25	7	1300	0.25	20	7.6	454	91	
SODZ11A-SH	11	23	8	1300			8.4	414	83	
SODZ12A-SH	12	21	9	1300			9.1	380	76	
SODZ13A-SH	13	19	10	1300			9.9	344	69	
SODZ15A-SH	15	17	14	1300			11.4	304	61	
SODZ16A-SH	16	15.5	16	1300			12.2	285	57	
SODZ18A-SH	18	14	20	1300			13.7	250	50	
SODZ20A-SH	20	12.5	22	1300			15.2	225	45	
SODZ22A-SH	22	11.5	23	1300			16.7	205	41	
SODZ24A-SH	24	10.5	25	1300			18.2	190	38	
SODZ27A-SH	27	9.5	35	1300			20.6	170	34	
SODZ30A-SH	30	8.5	40	1500			22.8	150	30	
SODZ33A-SH	33	7.5	45	1500			25.1	135	27	
SODZ36A-SH	36	7	50	1500			27.4	125	25	
SODZ39A-SH	39	6.5	60	1500			29.7	115	23	
SODZ43A-SH	43	6	70	2500			32.7	110	22	
SODZ47A-SH	47	5.5	80	2500			35.8	95	19	
SODZ51A-SH	51	5	95	2500			38.8	90	18	
SODZ56A-SH	56	4.5	110	2500			42.6	80	16	
SODZ62A-SH	62	4	125	2500			47.1	70	14	
SODZ68A-SH	68	3.7	150	2500	51.7	65	13			
SODZ75A-SH	75	3.3	175	2500	56	60	12			
SODZ82A-SH	82	3	200	3000	62.2	55	11			
SODZ91A-SH	91	2.8	250	3000	69.2	50	10			
SODZ100A-SH	100	2.5	350	3000	76	45	9			
SODZ110A-SH	110	2	550	5000	83	42	8			
SODZ120A-SH	120	1.5	750	5500	90	38	7			
SODZ130A-SH	130	1	900	6000	98	34	6			
SODZ150A-SH	150	1	1200	6500	113	30	6			
SODZ160A-SH	160	1	1350	7000	120	28	6			
SODZ180A-SH	180	1	1650	8500	135	25	5			
SODZ200A-SH	200	1	1950	10000	150	23	4			



TYPICAL CHARACTERISTICS

Figure. 1 Vz--Iz

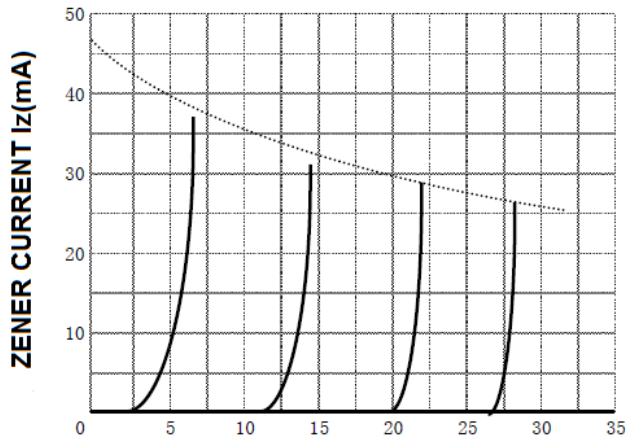


Figure. 2 Vz--Iz

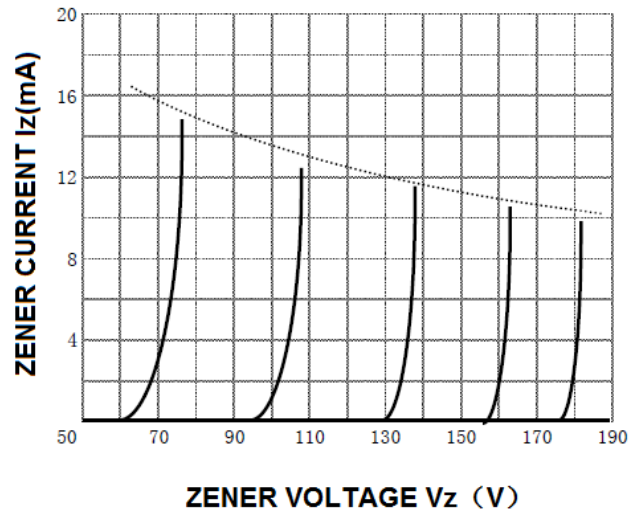
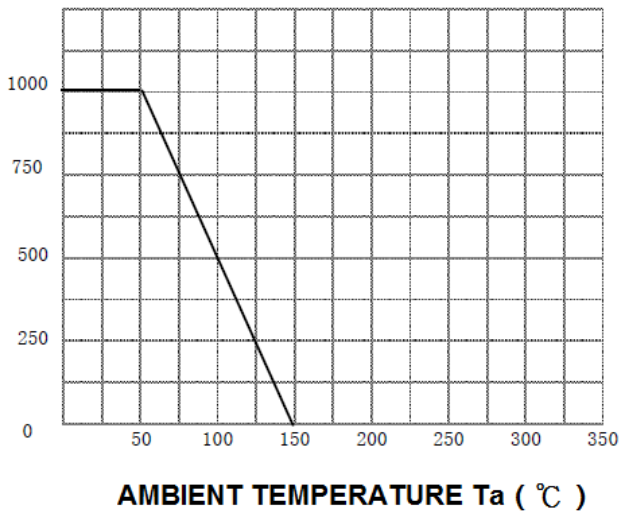


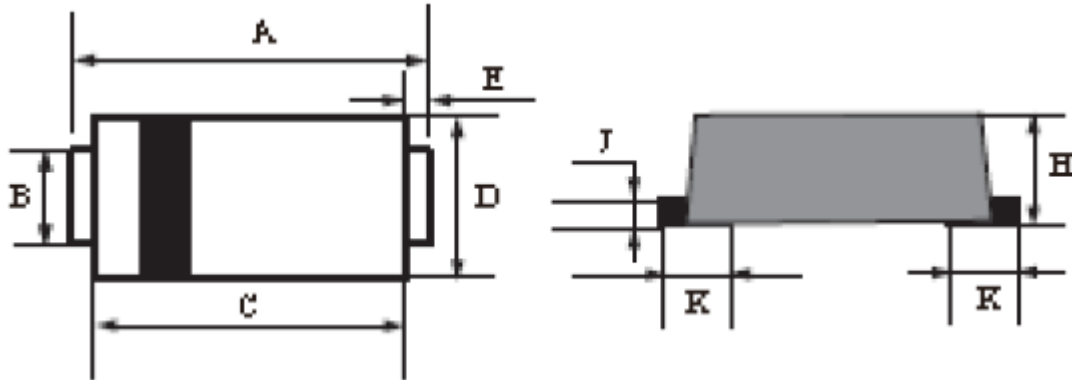
Figure. 3 P--Ta





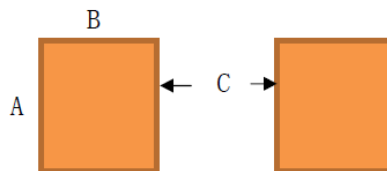
PACKAGE INFORMATION

Dimension in SOD-123FL (Unit: mm)



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.5	3.9	0.138	0.159
B	0.75	0.95	0.029	0.037
C	2.6	3.0	0.103	0.119
D	1.6	2.0	0.063	0.079
E	0.45 TYP		0.018 TYP	
H	0.9	1.2	0.036	0.047
J	0.12	0.22	0.005	0.009
K	0.8 TYP		0.032 TYP	

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SOD-123FL	0.044(1.10)	0.040(1.00)	0.079(2.00)



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