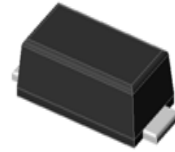


Features

- Total power dissipation: max, 500mW
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260 °C, 10 s
- Low profile, typical thickness 1.0mm
- For use in stabilizing and clipping circuits with high power rating



RoHS
COMPLIANT



eSGA
(SOD-123FL)

Maximum Ratings and Thermal Characteristics

(TA = 25 °C unless otherwise noted)

Parameter	Symbol	Value	Unit
Zener current		See Next Table	
Power dissipation	P _{tot}	500	mW
Maximum instantaneous forward voltage at 200mA	V _F	1.2	V
Thermal resistance junction to ambient air	R _{thja}	90	°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175	°C

Note: 1), The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 5×5mm copper pads, 2 OZ, FR4 PCB

Electrical Characteristics (TA = 25 °C unless otherwise noted)

Part Number	Marking Code	Zener voltage			Test current	Dynamic resistance		Reverse current	Reverse voltage	Temp Coefficient of zener voltage, TK _{vz}
		V _Z / V				IZT	ZZK			
		V _Z (MIN)	V _Z (NOR)	V _Z (MAX)	m A			Ω	m A	
FP5ZC8V2	4Z	7.7	8.2	8.7	5	30	5	5	5	0.03...0.08
FP5ZC9V1	5A	8.5	9.1	9.6	5	30	5	5	6	0.03...0.09
FP5ZC10	5B	9.4	10	10.6	5	30	5	5	7	0.03...0.1
FP5ZC11	5C	10.4	11	11.6	5	30	5	5	8	0.03...0.11
FP5ZC12	5D	11.4	12	12.7	5	35	5	5	9	0.03...0.11
FP5ZC13	5E	12.4	13	14.1	5	35	5	5	10	0.03...0.11



FP5ZC8V2 thru FP5ZC200

Surface Mount Zener Diodes

Vz Range:8.2 to 200V Power Dissipation:0.5W

Electrical Characteristics (TA = 25 °C unless otherwise noted)										
Part Number	Marking Code	Zener voltage			Test current	Dynamic resistance		Reverse current	Reverse voltage	Temp Coefficient of zener voltage, TKvz
		VZ /V			IZT	ZZK	IZK	IR(Max)	VR	
		Vz(MIN)	Vz(NOR)	Vz(MAX)	m A	Ω	m A	μA _{dc}	V	%/k
FP5ZC15	5F	13.8	15	15.6	5	40	5	5	11	0.03...0.11
FP5ZC16	5H	15.3	16	17.1	5	40	5	5	12	0.03...0.11
FP5ZC18	5J	16.8	18	19.1	5	45	5	5	13	0.03...0.11
FP5ZC20	5K	18.8	20	21.2	5	50	5	5	15	0.03...0.11
FP5ZC22	5M	20.8	22	23.3	5	55	5	5	17	0.04...0.12
FP5ZC24	5N	22.8	24	25.6	5	60	5	5	19	0.04...0.12
FP5ZC27	5P	25.1	27	28.9	5	70	2	5	21	0.04...0.12
FP5ZC30	5R	28	30	32	5	80	2	5	23	0.04...0.12
FP5ZC33	5X	31	33	35	5	80	2	5	25	0.04...0.12
FP5ZC36	5Y	34	36	38	5	90	2	5	27	0.04...0.12
FP5ZC39	5Z	37	39	41	2.5	100	2	5	30	0.04...0.12
FP5ZC43	6A	40	43	46	2.5	130	2	5	33	0.04...0.12
FP5ZC47	6B	44	47	50	2.5	150	2	5	36	0.04...0.12
FP5ZC51	6C	48	51	54	2.5	180	2	5	39	0.04...0.12
FP5ZC56	6D	52	56	60	2.5	180	2	5	43	0.04...0.12
FP5ZC62	6E	58	62	66	2.5	200	2	5	47	0.04...0.12
FP5ZC68	6F	64	68	72	2.5	250	2	5	52	0.04...0.12
FP5ZC75	6H	70	75	79	2.5	300	2	5	57	0.04...0.12
FP5ZC82	6J	77	82	87	2.5	300	2	5	63	0.05...0.12
FP5ZC91	6K	85	91	96	1	700	1	5	69	0.05...0.12
FP5ZC100	6M	94	100	106	1	700	1	5	76	0.05...0.12
FP5ZC110	6N	104	110	116	1	800	1	5	84	0.05...0.12
FP5ZC120	6P	114	120	127	1	900	1	5	91	0.05...0.12
FP5ZC130	6R	123.5	130	136.5	1.9	700	0.25	5	98.8	0.05...0.12
FP5ZC150	6X	142.5	150	157.5	1.7	1000	0.25	5	114	0.05...0.12
FP5ZC160	6Y	152	160	168	1.6	1100	0.25	5	121.6	0.05...0.12
FP5ZC170	6Z	161	170	179	1.5	1100	0.25	5	127.2	0.05...0.12
FP5ZC180	7A	171	180	189	1.4	1200	0.25	5	136.8	0.05...0.12
FP5ZC200	7B	190	200	210	1.2	1900	0.25	5	152	0.05...0.12



FP5ZC8V2 thru FP5ZC200

Surface Mount Zener Diodes
 Vz Range:8.2 to 200V Power Dissipation:0.5W

Ratings and Characteristics Curves

(TA = 25°C unless otherwise noted)

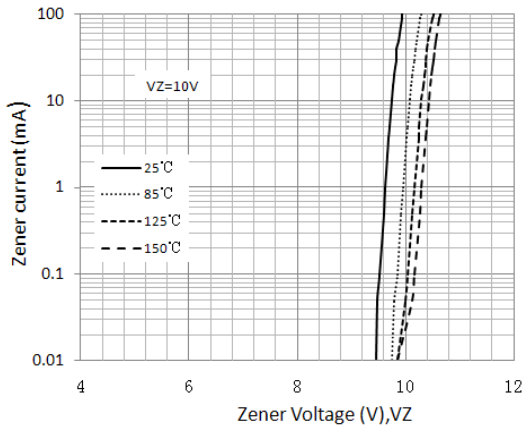


Figure 1. Typical Zener Voltage

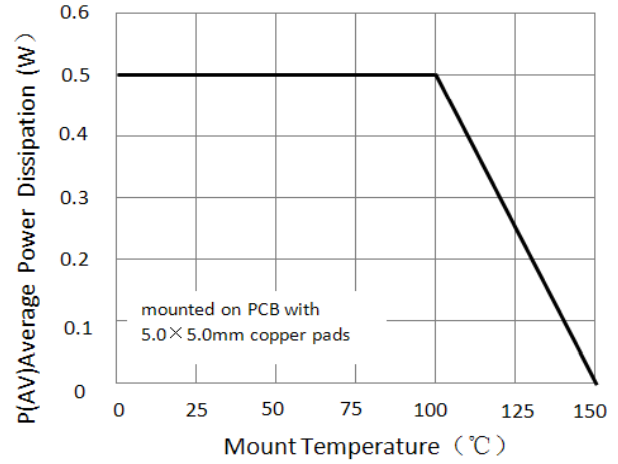


Figure 2. Steady State POWER Derating

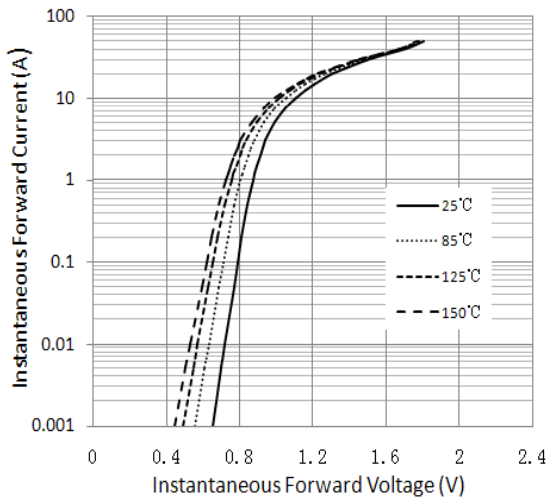


Figure 3. Typical Instantaneous Forward Characteristics

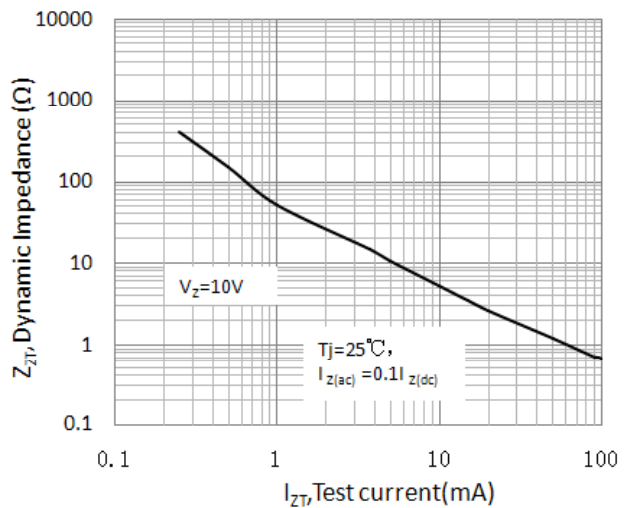


Figure 4. Typical Zener Impedance

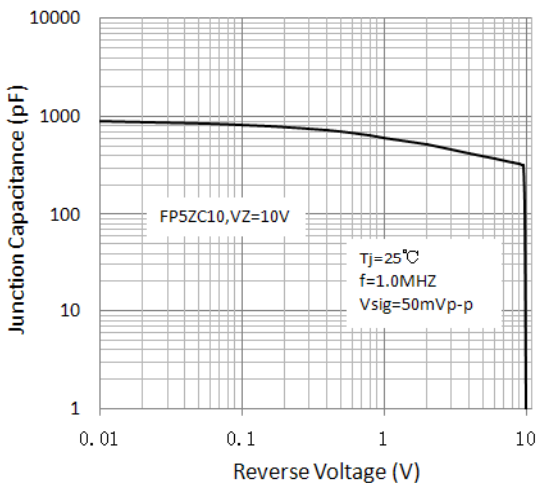
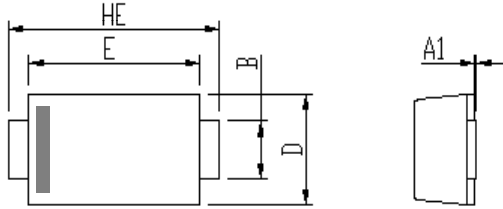


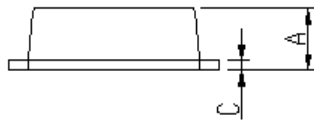
Figure 5. Typical Junction Capacitance

Package Outline Dimensions

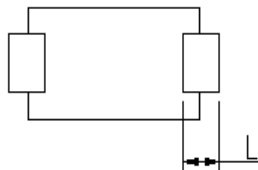
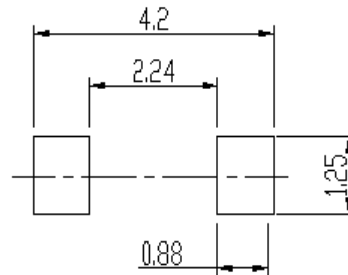
in inches (millimeters)



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.9	3.1	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154



Soldering footprint

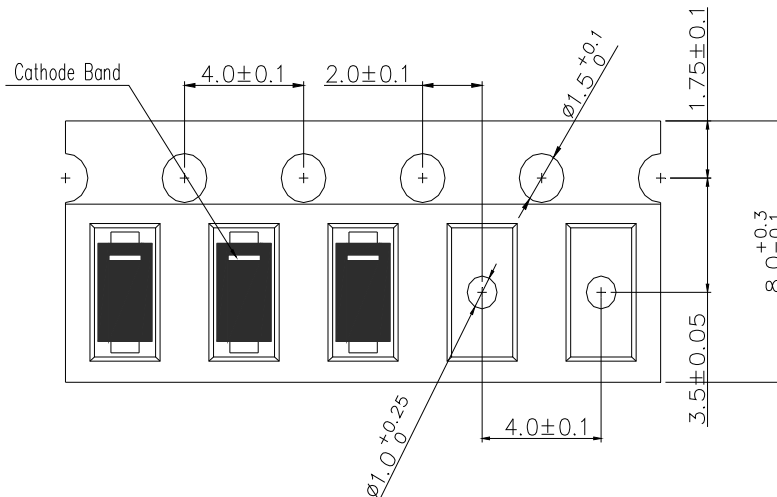


Packing Information

Packing quantities:

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

Tape & Reel Specification





FP5ZC8V2 thru FP5ZC200

Surface Mount Zener Diodes

Vz Range:8.2 to 200V Power Dissipation:0.5W

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