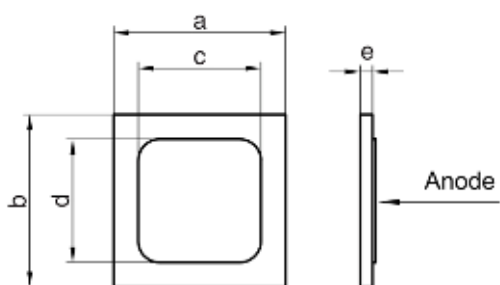




Small Signal Zener Diodes

Wire Bondable, Epoxy Attach Bare Die



a = .013 in b = .013 in c = .006 in
d = .006 in e = .007 in

FEATURES

- Wafer fab by Vishay Semiconductor
- Silicon planar Zener diode

MECHANICAL DATA

Top Metal (Anode)	AlSi
Back Metal (Cathode)	AuSb
Passivation	Nitride

THERMAL CHARACTERISTICS

Parameter:	Symbol:	Value:	Unit
Junction Temperature (max)	T_J	+175	°C
Operating Temperature Range	T_{OP}	-55 to +175	°C
Storage Temperature Range	T_S	-55 to +175	°C

DEVICE CODE

MZC	6.8	A	5	E	B	D
Prefix	Zener Voltage	Series	Tolerance (% V_Z)	Bottom Side Attach Method	Top Side Connection Method	Form
MZC	2.4 to 75 (See Table)	A = High Level B = Low Level	2 5 10	Epoxy Die Attach	Wire Bondable	D = Die





DATA SHEET

Rev: B

ELECTRICAL CHARACTERISTICS ($T_{amb} = +25^{\circ}\text{C}$ unless otherwise noted.)

“A” Series MZC2.4A5EBD through MZC10A5EBD, High Level

Part Number	Nominal Zener Voltage	Test Current	Max Zener Impedance	Reverse Leakage	
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	I_R	@ V_R
	(Volts)	(mA)	(Ohms)	(uA)	(Volts)
MZC2.4A5	2.4	21	53	100	1
MZC2.7A5	2.7	19	52	75	1
MZC3.0A5	3.0	17	50	50	1
MZC3.3A5	3.3	15	47	25	1
MZC3.6A5	3.6	14	43	15	1
MZC3.9A5	3.9	13	35	10	1
MZC4.3A5	4.3	12	29	5	1
MZC4.7A5	4.7	11	24	5	2
MZC5.1A5	5.1	9.8	21	5	2
MZC5.6A5	5.6	8.9	25	5	3
MZC6.2A5	6.2	8.1	31	5	4
MZC6.8A5	6.8	7.3	38	3	5
MZC7.5A5	7.5	6.7	43	3	6
MZC8.2A5	8.2	6.1	49	3	6.5
MZC9.1A5	9.1	5.5	54	3	7
MZC10A5	10	5.0	60	3	8

“B” Series MZC2.4B5EBD through MZC10B5EBD, Low Level

Part Number	Nominal Zener Voltage	Test Current	Max Zener Impedance	Reverse Leakage	
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	I_R	@ V_R
	(Volts)	(mA)	(Ohms)	(uA)	(Volts)
MZC2.4B5	2.4	0.25	1400	2.0	1.0
MZC2.7B5	2.7	0.25	1500	1.0	1.0
MZC3.0B5	3.0	0.25	1600	0.8	1.0
MZC3.3B5	3.3	0.25	1650	7.5	1.0
MZC3.6B5	3.6	0.25	1700	7.5	1.5
MZC3.9B5	3.9	0.25	1650	5.0	2.0
MZC4.3B5	4.3	0.25	1600	4.0	2.0
MZC4.7B5	4.7	0.25	1550	10	3.0
MZC5.1B5	5.1	0.25	1500	10	3.0
MZC5.6B5	5.6	0.25	1400	10	4.0
MZC6.2B5	6.2	0.25	200	10	5.0
MZC6.8B5	6.8	0.25	200	10	5.2
MZC7.5B5	7.5	0.25	200	10	5.7
MZC8.2B5	8.2	0.25	200	1.0	6.3
MZC9.1B5	9.1	0.25	300	1.0	6.9
MZC10B5	10	0.25	400	1.0	7.6



DATA SHEET

Rev: B

ELECTRICAL CHARACTERISTICS ($T_{amb} = +25^{\circ}\text{C}$ unless otherwise indicated)

“A” Series MZC11A5EBD through MZC75A5EBD, High Level

Part Number	Nominal Zener Voltage	Test Current	Max Zener Impedance	Reverse Leakage	
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	I_R	@ V_R
	(Volts)	(mA)	(Ohms)	(uA)	(Volts)
MZC11A5	11	4.5	66	2.0	8.4
MZC12A5	12	4.2	71	1.0	9.1
MZC13A5	13	3.8	74	0.5	9.9
MZC15A5	15	3.3	37	0.1	11
MZC16A5	16	3.1	42	0.1	12
MZC18A5	18	2.8	52	0.1	14
MZC20A5	20	2.5	65	0.1	15
MZC22A5	22	2.3	70	0.1	17
MZC24A5	24	2.1	92	0.1	18
MZC27A5	27	1.9	115	0.1	21
MZC30A5	30	1.7	140	0.1	23
MZC33A5	33	1.5	170	0.1	25
MZC36A5	36	1.4	200	0.1	27
MZC39A5	39	1.3	230	0.1	30
MZC43A5	43	1.2	280	0.1	33
MZC47A5	47	1.1	330	0.1	36
MZC51A5	51	0.98	390	0.1	39
MZC56A5	56	0.89	460	0.1	43
MZC62A5	62	0.81	560	0.1	47
MZC68A5	68	0.74	680	0.1	52
MZC75A5	75	0.67	800	0.1	56



ELECTRICAL CHARACTERISTICS ($T_{amb} = +25^{\circ}\text{C}$ unless otherwise indicated)

“B” Series MZC11B5EBD through MZC75B5EBD, Low Level

Part Number	Nominal Zener Voltage	Test Current	Max Zener Impedance	Reverse Leakage	
	$V_Z @ I_{ZT}$	I_{ZT}	$Z_{ZT} @ I_{ZT}$	I_R	@ V_R
	(Volts)	(mA)	(Ohms)	(uA)	(Volts)
MZC11B5	11	0.25	400	0.05	8.5
MZC12B5	12	0.25	300	0.05	9.1
MZC13B5	13	0.25	200	0.05	9.9
MZC15B5	15	0.25	200	0.05	11.4
MZC16B5	16	0.25	200	0.05	12.2
MZC18B5	18	0.25	200	0.05	13.7
MZC20B5	20	0.25	200	0.01	15.2
MZC22B5	22	0.25	200	0.01	16.7
MZC24B5	24	0.25	200	0.01	18.5
MZC27B5	27	0.25	200	0.01	20.5
MZC30B5	30	0.25	200	0.01	22.6
MZC33B5	33	0.25	200	0.01	25.1
MZC36B5	36	0.25	200	0.01	27.4
MZC39B5	39	0.25	200	0.01	29.7
MZC43B5	43	0.25	250	0.01	32.7
MZC47B5	47	0.25	250	0.01	35.8
MZC51B5	51	0.25	300	0.01	38.8
MZC56B5	56	0.25	300	0.01	42.6
MZC62B5	62	0.25	300	0.01	47.1
MZC68B5	68	0.25	400	0.01	51.7
MZC75A5	75	0.25	500	0.01	57.0