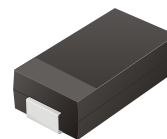


Surface Mount Zener Diodes

CZRB5926 - CZRB5956

Voltage: 11- 200 Volts

Power: 1.5 Watts

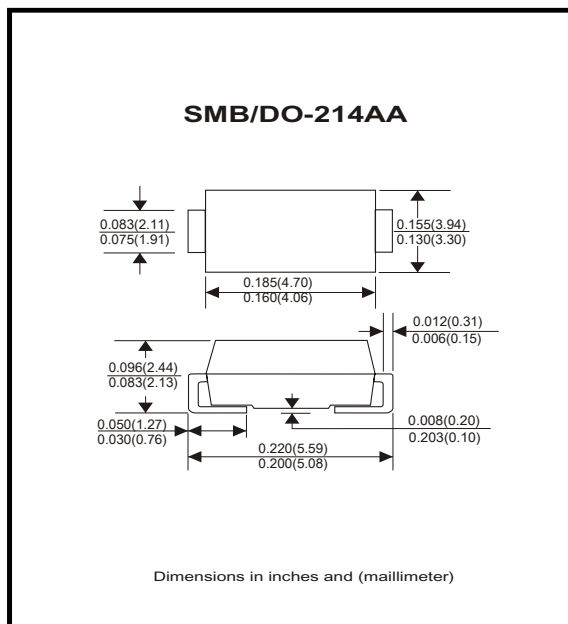


Feature

- For surf ace mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O

Mechanical data

- Case: JEDEC DO-214AA Molded plastic over
- Terminals: Solder Plated, solderable per Flammability Classification 94V-O MIL-STD-750, method 2026
- Weight:0.003 ounce, 0.093 gram



Maximum Ratings and Electrical Characteristics

Parameter	Symbol	Value	Units
DC Power Dissipation @ TL=75, Measure at Zero Lead Length(Note 1, Fig.) Derate above 75 °C	P_D	1.5 15	Watts mW/°C
Peak forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) (Note 1,2)	I_{FSM}	10	Amps
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

NOTES:

1. Mounted on 5.0mm2(.013mm thick) land areas.
2. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.
3. ZENER VOLTAGE (V_Z) MEASUREMENT Nominal zener voltage is measured with the device function in thermal equilibrium with ambient temperature at 25 °C.
4. ZENER IMPEDANCE (Z_Z) DERIVATION ZZT and ZZK are measured by dividing the ac voltage drop across the device by the accurent applied. The specified limits are for $I_Z(ac) = 0.1 I_Z, (dc)$ with the ac frequency = 60Hz.

ELECTRICAL CHARACTERISTICS

($T_L=30^{\circ}\text{C}$ unless otherwise noted) ($V_F=1.5\text{Volts Max @ } I_F=200\text{mAdc}$ for all types.)

Device	Nominal Zener Voltage $V_Z @ I_{ZT}$ (Note 1)	Test current I_{ZT}	Maximum Zener Impedance (Note 2)			Max Reverse Leakage Current		Max DC Zener Current I_{ZM}
			$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	I_R	V_R	
	(Volts)	(mA)	(Ohms)	(Ohms)	(mA)	(uA)	(Volts)	(mAdc)
CZRB5926	11	34.1	5.5	550	0.25	1	8.4	136
CZRB5927	12	31.2	6.5	550	0.25	1	9.1	125
CZRB5928	13	28.8	7	550	0.25	1	9.9	115
CZRB5929	15	25	9	600	0.25	1	11.4	100
CZRB5930	16	23.4	10	600	0.25	1	12.2	93
CZRB5931	18	20.8	12	650	0.25	1	13.7	83
CZRB5932	20	18.7	14	650	0.25	1	15.2	75
CZRB5933	22	17	17.5	650	0.25	1	16.7	68
CZRB5934	24	15.6	19	700	0.25	1	18.2	62
CZRB5935	27	13.9	23	700	0.25	1	20.6	55
CZRB5936	30	12.5	26	750	0.25	1	22.8	50
CZRB5937	33	11.4	33	800	0.25	1	25.1	45
CZRB5938	36	10.4	38	850	0.25	1	27.4	41
CZRB5939	39	9.6	45	900	0.25	1	29.7	38
CZRB5940	43	8.7	53	950	0.25	1	32.7	34
CZRB5941	47	8	67	1000	0.25	1	35.8	31
CZRB5942	51	7.3	70	1100	0.25	1	38.8	29
CZRB5943	56	6.7	86	1300	0.25	1	42.6	26
CZRB5944	62	6	100	1500	0.25	1	47.1	24
CZRB5945	68	5.5	120	1700	0.25	1	51.7	22
CZRB5946	75	5	140	2000	0.25	1	56	20
CZRB5947	82	4.6	160	2500	0.25	1	62.2	18
CZRB5948	91	4.1	200	3000	0.25	1	69.2	16
CZRB5949	100	3.7	250	3100	0.25	1	76	15
CZRB5950	110	3.4	300	4000	0.25	1	83.6	13
CZRB5951	120	3.1	380	4500	0.25	1	91.2	12
CZRB5952	130	2.9	450	5000	0.25	1	98.8	11
CZRB5953	150	2.5	600	6000	0.25	1	114	10
CZRB5954	160	2.3	700	6500	0.25	1	121.6	9
CZRB5955	180	2.1	900	7000	0.25	1	136.8	8
CZRB5956	200	1.9	1200	8000	0.25	1	152	7

* TOLERANCE AND VOLTAGE DESIGNATION Tolerance designation - The type numbers listed indicate a tolerance of $\pm 5\%$

RATING AND CHARACTERISTIC CURVES (CZRB5926-5956)

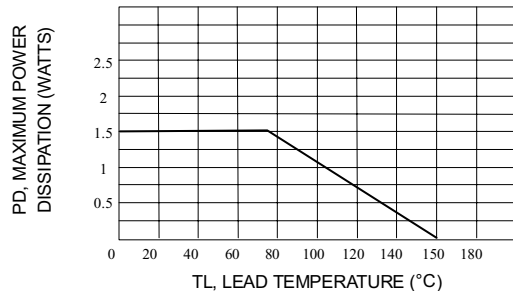


Fig.1 - STEADY STATE POWER DERATING

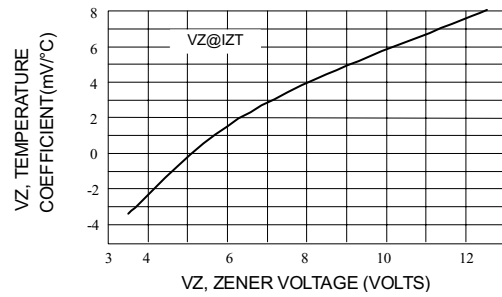


Fig.2 - ZENER VOLTAGE-TO 12 VOLTS

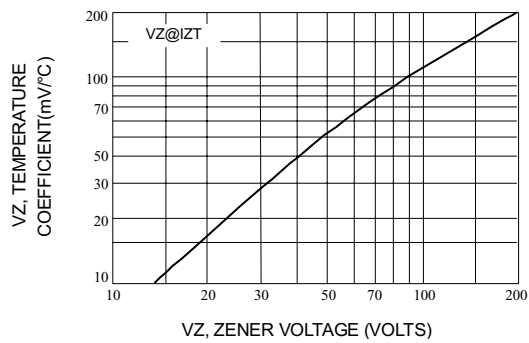


Fig.3 - ZENER VOLTAGE-10 TO 200 VOLTS

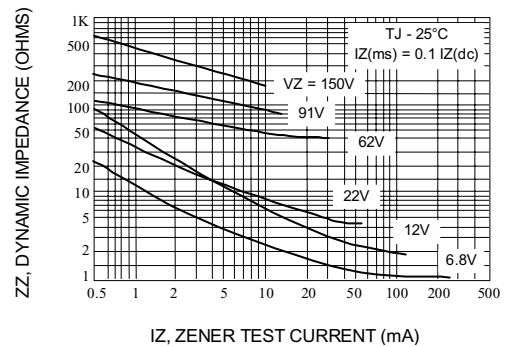


Fig.4 - EFFECT OF ZENER CURRENT

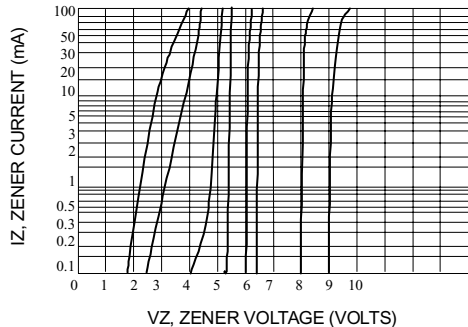
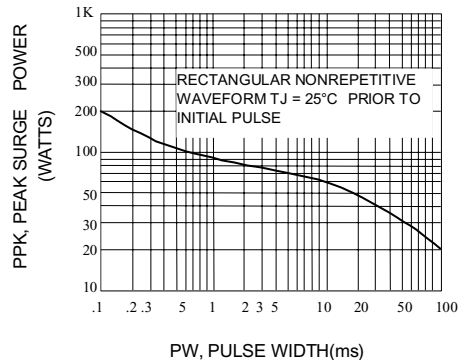
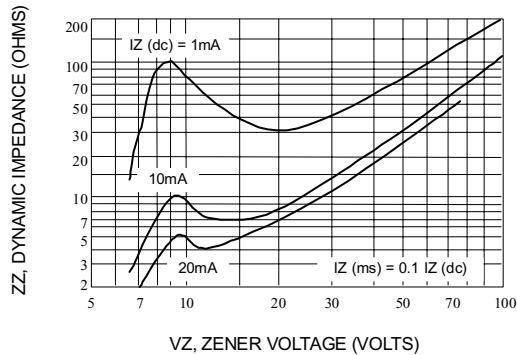


Fig.5 - VZ = 6.8 THRU 10 VOLTS

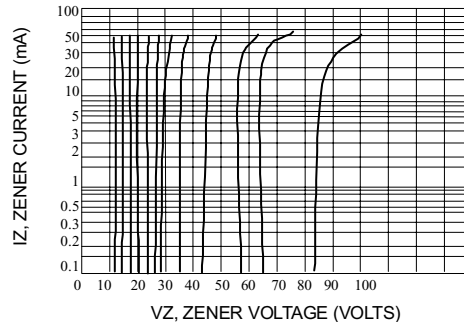


Fig.6 - VZ = 12 THRU 82 VOLTS