

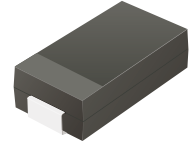
ACZRA5920B-HF Thru. ACZRA5956B-HF

Voltage: 6.2 to 200 Volts

Power: 1.5 Watts

RoHS Device

Halogen Free

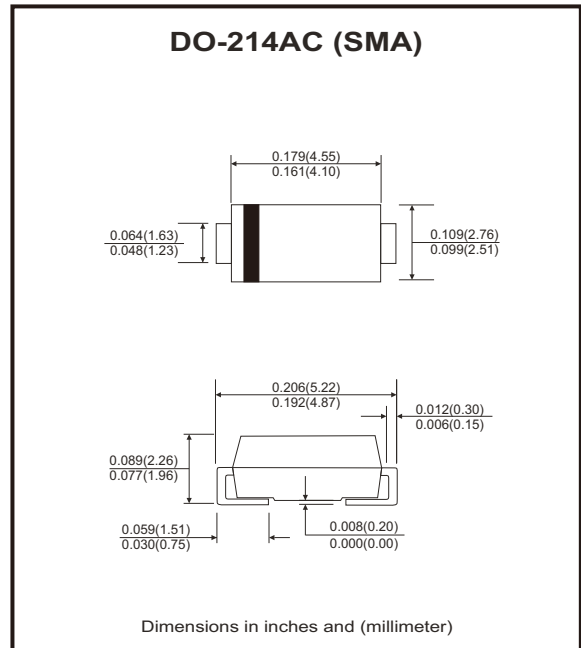


Features

- Glass passivated chip.
- Low leakage.
- Built-in strain relief.
- Low inductance.
- High peak reverse power dissipa.
- For use in stabilizing and clipping circuits with high power.
- AEC-Q101 Qualified

Mechanical data

- Case: DO-214AC(SMA), Molded plastic.
- Epoxy: UL 94V-0 rate flame retardant.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode.
- Mounting position: Any.



Circuit Diagram



Maximum Rating (T_A=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
DC power dissipation at T _L = 75°C (Note 1)	P _D	1.5	W
Maximum forward voltage at I _F =200mA	V _F	1.5	V
Junction temperature range	T _J	-55 to +175	°C
Storage temperature range	T _{STG}	-55 to +175	°C

Note: 1. Mounted on 30mm² 1 oz thick land areas, lead temperature at T_L=75°C

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

Part Number	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current	Marking Code
	V _Z @ I _{ZT}	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _{ZK}	I _R @ V _R		I _{ZM}	
	(V)	(mA)	(Ohm)	(Ohm)	(mA)	(μA)	(V)	(mA)	
ACZRA5920B-HF	6.2	60.5	2.0	200	1.0	2.5	4.0	120	920B
ACZRA5921B-HF	6.8	55.1	2.5	200	1.0	2.5	5.2	220	921B
ACZRA5922B-HF	7.5	50.0	3.0	400	0.5	2.5	6.0	200	922B
ACZRA5923B-HF	8.2	45.7	3.5	400	0.5	2.5	6.5	182	923B
ACZRA5924B-HF	9.1	41.2	4.0	500	0.5	2.5	7.0	164	924B
ACZRA5925B-HF	10	37.5	4.5	500	0.25	2.5	8.0	150	925B
ACZRA5926B-HF	11	34.1	5.5	550	0.25	0.5	8.4	136	926B
ACZRA5927B-HF	12	31.2	6.5	550	0.25	0.5	9.1	125	927B
ACZRA5928B-HF	13	28.8	7.0	550	0.25	0.5	9.9	115	928B
ACZRA5929B-HF	15	25.0	9.0	600	0.25	0.5	11.4	100	929B
ACZRA5930B-HF	16	23.4	10	600	0.25	0.5	12.2	93	930B
ACZRA5931B-HF	18	20.8	12	650	0.25	0.5	13.7	83	931B
ACZRA5932B-HF	20	18.7	14	650	0.25	0.5	15.2	75	932B
ACZRA5933B-HF	22	17.0	18	650	0.25	0.5	16.7	68	933B
ACZRA5934B-HF	24	15.6	19	700	0.25	0.5	18.2	62	934B
ACZRA5935B-HF	27	13.9	23	700	0.25	0.5	20.6	55	935B
ACZRA5936B-HF	30	12.5	26	750	0.25	0.5	22.8	50	936B
ACZRA5937B-HF	33	11.4	33	800	0.25	0.5	25.1	45	937B
ACZRA5938B-HF	36	10.4	38	850	0.25	0.5	27.4	41	938B
ACZRA5939B-HF	39	9.6	45	900	0.25	0.5	29.7	38	939B
ACZRA5940B-HF	43	8.7	53	950	0.25	0.5	32.7	34	940B
ACZRA5941B-HF	47	8.0	67	1000	0.25	0.5	35.8	31	941B
ACZRA5942B-HF	51	7.3	70	1100	0.25	0.5	38.8	29	942B
ACZRA5943B-HF	56	6.7	86	1300	0.25	0.5	42.6	26	943B
ACZRA5944B-HF	62	6.0	100	1500	0.25	0.5	47.1	24	944B
ACZRA5945B-HF	68	5.5	120	1700	0.25	0.5	51.7	22	945B
ACZRA5946B-HF	75	5.0	140	2000	0.25	0.5	56.0	20	946B
ACZRA5947B-HF	82	4.6	160	2500	0.25	0.5	62.2	18	947B
ACZRA5948B-HF	91	4.1	200	3000	0.25	0.5	69.2	16	948B
ACZRA5949B-HF	100	3.7	250	3100	0.25	0.5	76.0	15	949B
ACZRA5950B-HF	110	3.4	300	4000	0.25	0.5	83.6	13	950B
ACZRA5951B-HF	120	3.1	380	4500	0.25	0.5	91.2	12	951B
ACZRA5952B-HF	130	2.9	450	5000	0.25	0.5	98.8	11	952B
ACZRA5953B-HF	150	2.5	600	6000	0.25	0.5	114.0	10	953B
ACZRA5954B-HF	160	2.3	700	6500	0.25	0.5	121.6	9	954B
ACZRA5955B-HF	180	2.1	900	7000	0.25	0.5	136.8	8	955B
ACZRA5956B-HF	200	1.9	1200	8000	0.25	0.5	152.0	7	956B

- Notes: 1. The type number listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.
 2. The reverse surge current is a non-repetitive, 8.3ms pulse width square wave or equivalent sine-wave superimposed on I_{ZT} per JEDEC Method.

Rating and Characteristic Curves (ACZRA5920B-HF Thru. ACZRA5956B-HF)

Fig.1 - Power Temperature Derating Curve

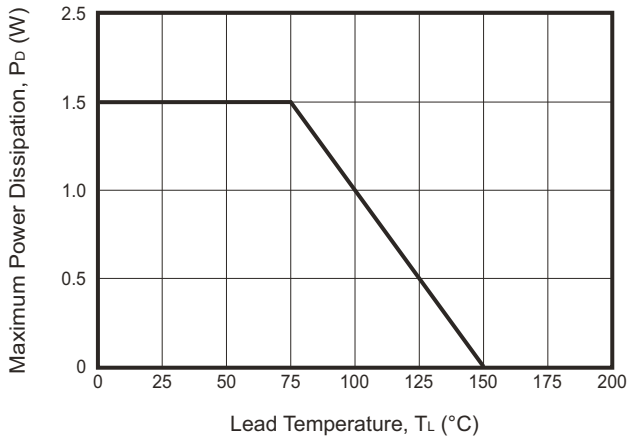


Fig.2 - Temperature Coefficients v.s. Zener Voltage

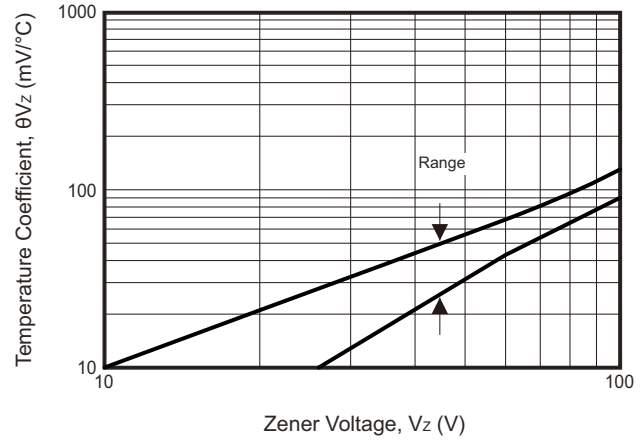


Fig.3 - Pulse Waveform

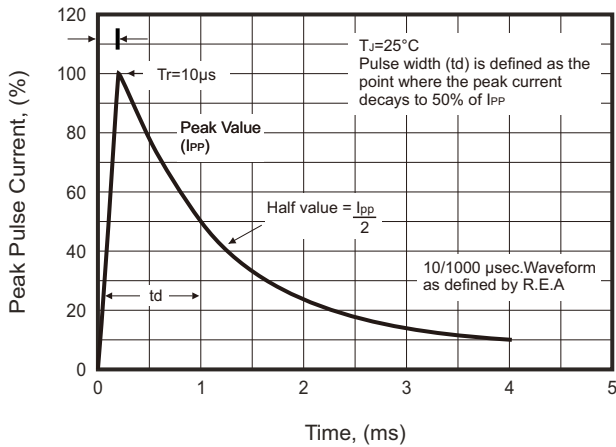
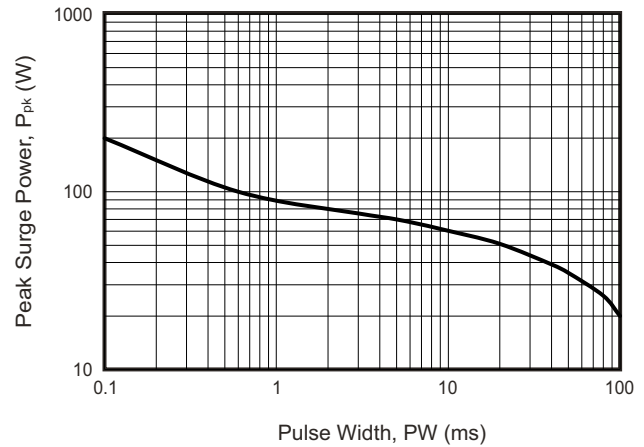
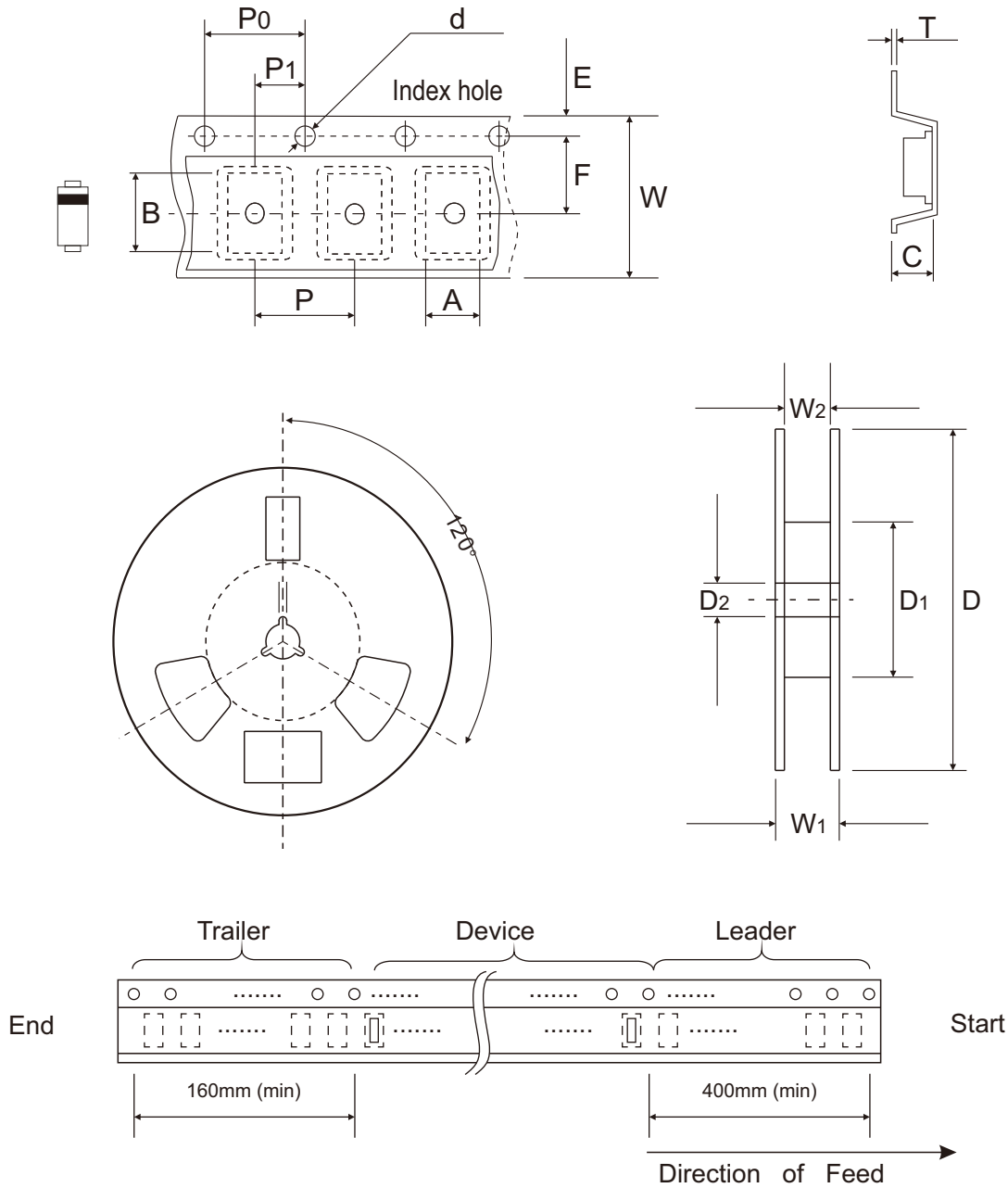


Fig.4 - Maximum Surge Power



Reel Taping Specification



DO-214AA (SMB)	SYMBOL	A	B	C	d	D	D1	D2	E
	(mm)	See Note 1			1.55 ± 0.05	330.00	50.00 (Min.)	13.00 ± 0.50	1.75 ± 0.05
	(inch)	See Note 1			0.061 ± 0.002	12.992	1.969 (Min.)	0.512 ± 0.020	0.069 ± 0.002

DO-214AA (SMB)	SYMBOL	F	P	P0	P1	T	W	W1	W2
	(mm)	5.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.40 (Max.)	12.00 ± 0.10	18.40 (Max.)	14.40 (Max.)
	(inch)	0.217 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.016 (Max.)	0.472 ± 0.004	0.724 (Max.)	0.567 (Max.)

Notes: 1. A, B, and C the clearance between the component and the cavity must be within 0.5mm max. for 8mm tape and 12mm tape, 1.0mm max. for 16mm tape and 24mm tape.

Company reserves the right to improve product design, functions and reliability without notice. REV:A

Marking Code

Part Number	Marking Code
ACZRA5920B-HF ~ ACZRA5956B-HF	XXXX

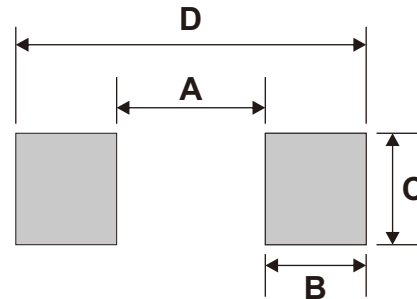


XXXX = Marking code (See Page.2)

█ = Cathode band

Suggested PAD Layout

SIZE	DO-214AC(SMA)	
	(mm)	(inch)
A	1.88 MAX	0.074 MAX
B	1.52 MIN	0.060 MIN
C	1.68 MIN	0.066 MIN
D	5.28 REF	0.208 REF



Note: 1.The pad layout is for reference purposes only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-214AC (SMA)	5,000	13