

CentralTM Semiconductor Corp.

145 Adams Ave., Hauppauge, NY 11788 USA
Phone (631) 435-1110 FAX (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

www.centrasemi.com

SA5.0CA THRU SA170CA

BI-DIRECTIONAL
GLASS PASSIVATED JUNCTION
TRANSIENT VOLTAGE SUPPRESSOR
500 WATTS, 5.0 THRU 170 VOLTS

DO-15 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR SA5.0CA Series types are bi-directional glass passivated junction transient voltage suppressors designed to protect sensitive components from high voltage transients. **THIS DEVICE IS MANUFACTURED WITH A GLASS PASSIVATED CHIP FOR OPTIMUM RELIABILITY.**

Note: For uni-directional devices, please refer to the SA5.0A Series data sheet.

MAXIMUM RATINGS (T_A=25°C unless otherwise noted)

	SYMBOL		UNITS
Peak Power Dissipation	P _{DM}	500	W
Peak Forward Surge Current (JEDEC Method)	I _{FSM}	70	A
Operating and Storage Junction Temperature	T _J , T _{stg}	-65 to +175	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

TYPE NO.	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE			MAXIMUM REVERSE LEAKAGE @ V _{RWM}	MAXIMUM CLAMPING VOLTAGE @ I _{PPM}	MAXIMUM PEAK PULSE CURRENT	MARKING CODE
		V _{BR}	@ I _T	I _R				
	VOLTS				V _C	I _{PPM}		
	VOLTS	MIN	MAX	mA	μA	VOLTS	A	
SA5.0CA	5.0	6.40	7.25	10	1200	9.2	54.3	SA5.0CA
SA6.0CA	6.0	6.67	7.67	10	1200	10.3	48.5	SA6.0CA
SA6.5CA	6.5	7.22	8.30	10	800	11.2	44.7	SA6.5CA
SA7.0CA	7.0	7.78	8.95	10	300	12.0	41.7	SA7.0CA
SA7.5CA	7.5	8.33	9.58	1.0	100	12.9	38.8	SA7.5CA
SA8.0CA	8.0	8.89	10.23	1.0	50	13.6	36.7	SA8.0CA
SA8.5CA	8.5	9.44	10.82	1.0	20	14.4	34.7	SA8.5CA
SA9.0CA	9.0	10.0	11.50	1.0	5.0	15.4	32.5	SA9.0CA

(SEE REVERSE SIDE)

ELECTRICAL CHARACTERISTICS CONTINUED ($T_A=25^\circ\text{C}$ unless otherwise noted)

TYPE NO.	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE			MAXIMUM REVERSE LEAKAGE @ V_{RWM}	MAXIMUM CLAMPING VOLTAGE @ I_{PPM}	MAXIMUM PEAK PULSE CURRENT I_{PPM}	MARKING CODE
		V_{BR}		@ I_T				
	V_{RWM}	VOLTS			I_R	V_C	A	
	VOLTS	MIN	MAX	mA	μA	VOLTS	A	
SA10CA	10	11.10	12.80	1.0	3.0	17.0	29.4	SA10CA
SA11CA	11	12.20	14.00	1.0	3.0	18.2	27.4	SA11CA
SA12CA	12	13.30	15.30	1.0	3.0	19.9	25.1	SA12CA
SA13CA	13	14.40	16.50	1.0	3.0	21.5	23.2	SA13CA
SA14CA	14	15.60	17.90	1.0	3.0	23.2	21.5	SA14CA
SA15CA	15	16.70	19.20	1.0	3.0	24.4	20.6	SA15CA
SA16CA	16	17.80	20.50	1.0	3.0	26.0	19.2	SA16CA
SA17CA	17	18.90	21.70	1.0	3.0	27.6	16.1	SA17CA
SA18CA	18	20.00	23.30	1.0	3.0	29.2	17.2	SA18CA
SA20CA	20	22.20	25.50	1.0	3.0	32.4	15.4	SA20CA
SA22CA	22	24.40	28.00	1.0	3.0	35.5	14.1	SA22CA
SA24CA	24	26.70	30.70	1.0	3.0	38.9	12.8	SA24CA
SA26CA	26	28.90	33.20	1.0	3.0	42.1	11.9	SA26CA
SA28CA	28	31.10	35.80	1.0	3.0	45.4	11.0	SA28CA
SA30CA	30	33.30	38.30	1.0	3.0	48.4	10.3	SA30CA
SA33CA	33	36.70	42.20	1.0	3.0	53.3	9.4	SA33CA
SA36CA	36	40.00	46.00	1.0	3.0	58.1	8.6	SA36CA
SA40CA	40	44.40	51.10	1.0	3.0	64.5	7.8	SA40CA
SA43CA	43	47.80	54.90	1.0	3.0	69.4	7.2	SA43CA
SA45CA	45	50.00	57.50	1.0	3.0	72.7	6.9	SA45CA
SA48CA	48	53.30	61.30	1.0	3.0	77.4	6.5	SA48CA
SA51CA	51	56.70	65.20	1.0	3.0	82.4	6.1	SA51CA
SA54CA	54	60.00	69.00	1.0	3.0	87.1	5.7	SA54CA
SA58CA	58	64.40	74.10	1.0	3.0	93.6	5.3	SA58CA
SA60CA	60	66.70	76.70	1.0	3.0	96.8	5.2	SA60CA

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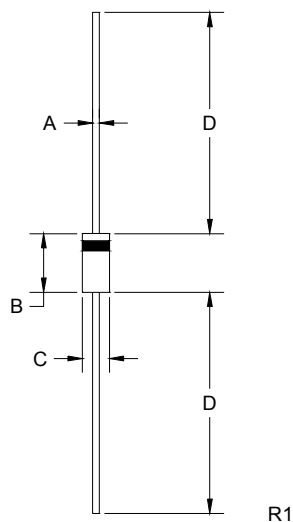
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TYPE NO.	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE			MAXIMUM REVERSE LEAKAGE @ V_{RWM}	MAXIMUM CLAMPING VOLTAGE @ I_{PPM}	MAXIMUM PEAK PULSE CURRENT	MARKING CODE
		V_{BR}	@ I_T					
	V_{RWM}				VOLTS		I_R	
	VOLTS	MIN	MAX	mA	μA	VOLTS	A	
SA64CA	64	71.10	81.80	1.0	3.0	103	4.9	SA64CA
SA70CA	70	77.80	89.50	1.0	3.0	113	4.4	SA70CA
SA75CA	75	83.30	95.80	1.0	3.0	121	4.1	SA75CA
SA78CA	78	86.70	99.70	1.0	3.0	126	4.0	SA78CA
SA85CA	85	94.40	108.2	1.0	3.0	137	3.6	SA85CA
SA90CA	90	100.0	115.5	1.0	3.0	146	3.4	SA90CA
SA100CA	100	111.0	128.0	1.0	3.0	162	3.1	SA100CA
SA110CA	110	122.0	140.5	1.0	3.0	177	2.8	SA110CA
SA120CA	120	133.0	153.0	1.0	3.0	193	2.0	SA120CA
SA130CA	130	144.0	165.5	1.0	3.0	209	2.4	SA130CA
SA150CA	150	167.0	192.5	1.0	3.0	243	2.1	SA150CA
SA160CA	160	178.0	205.0	1.0	3.0	259	1.9	SA160CA
SA170CA	170	189.0	217.5	1.0	3.0	275	1.8	SA170CA

DO-15 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.028	0.034	0.71	0.86
B	0.230	0.300	5.84	7.62
C	0.104	0.140	2.64	3.56
D	1.000	-	25.40	-

DO-15 (REV: R1)

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