

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 I _{PPM}	MARKING CODE
		V _{BR}		@ I _T				
	V _{RWM}	VOLTS			I _R	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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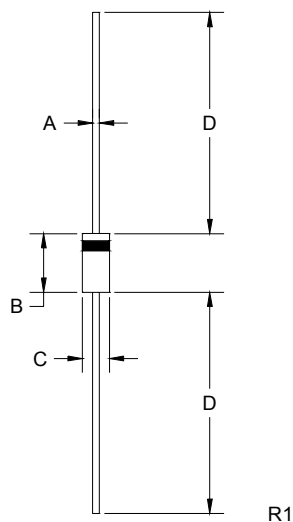
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		V_{BR}	@ I_T					
	V_{RWM}				VOLTS		I_R	
	VOLTS	MIN	MAX	mA	μA	VOLTS	A	
SA64CA	64	71.10	81.80	1.0	3.0	103	4.9	SA64CA
SA70CA	70	77.80	89.50	1.0	3.0	113	4.4	SA70CA
SA75CA	75	83.30	95.80	1.0	3.0	121	4.1	SA75CA
SA78CA	78	86.70	99.70	1.0	3.0	126	4.0	SA78CA
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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OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

Corporate Headquarters & Customer Support Team

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Worldwide Distributors:
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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms



http://www.centrasemi.com

Product End of Life Notification

PDN ID:	PDN01020
Notification Date:	2/03/16
Last Buy Date:	8/03/16
Last Shipment Date	2/03/17

Summary:500 Watt Transient Voltage Supressors manufactured in the DO-15 package are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
SA14A BK	P6KE16A BK
SA14A TR	P6KE16A BK
SA18CA TR	P6KE22CA BK
SA20A BK	P6KE24A TR
SA20A TR	P6KE24A TR
SA20CA TR	P6KE24CA BK
SA30A BK	P6KE36A BK
SA30A TR	P6KE36A BK
SA30CA BK	P6KE36CA TR
SA33CA BK	P6KE39CA BK
SA40A TR	P6KE47A BK
SA43A TR	P6KE51A BK
SA5.0A BK	P6KE6.8A BK
SA6.0A BK	P6KE6.8A BK
SA6.0A TR	P6KE6.8A BK
SA6.5CA BK	P6KE7.5CA BK
SA6.5CA TR	P6KE7.5A BK

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centrasemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.