

5SMC33A
THRU
5SMC170A



SURFACE MOUNT SILICON
UNI-DIRECTIONAL
GLASS PASSIVATED JUNCTION
TRANSIENT VOLTAGE SUPPRESSORS
5000 WATT, 33 THRU 170 VOLT



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 5SMC33A series devices are surface mount uni-directional glass passivated junction transient voltage suppressors designed to protect voltage sensitive components from high energy transients.

MARKING CODE: SEE ELECTRICAL CHARACTERISTICS TABLE

Specified by
STAND-OFF VOLTAGE



SMC CASE

APPLICATIONS:

- Inductive load switching circuits
- Secondary lightning protection
- Telecommunication data lines

FEATURES:

- Glass passivated die
- High energy capability
- Excellent clamping ratio (V_C/V_{RWM})

MAXIMUM RATINGS: ($T_A=25^\circ\text{C}$ unless otherwise noted)

Peak Power Dissipation (Note 1)

Peak Forward Surge Current (JEDEC Method)

Operating and Storage Junction Temperature

SYMBOL

P_{PK}

I_{FSM}

T_J, T_{stg}

5000

300

-65 to +150

UNITS

W

A

$^\circ\text{C}$

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

TYPE	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE		TEST CURRENT	MAXIMUM REVERSE LEAKAGE CURRENT	MAXIMUM CLAMPING VOLTAGE	PEAK PULSE CURRENT (Note 1)	MARKING CODE
	V_{RWM}	$V_{BR} @ I_T$		I_T	$I_R @ V_{RWM}$	$V_C @ I_{PP}$	I_{PP}	
	V	MIN V	MAX V	mA	μA	V	A	
5SMC33A	33	36.7	42.2	1.0	3.0	53.3	93.9	5C33A
5SMC36A	36	40.0	46.0	1.0	3.0	58.1	86.1	5C36A
5SMC40A	40	44.4	51.1	1.0	3.0	64.5	77.6	5C40A
5SMC43A	43	47.8	54.9	1.0	3.0	69.4	72.1	5C43A
5SMC45A	45	50.0	57.5	1.0	3.0	72.7	68.8	5C45A
5SMC48A	48	53.3	61.3	1.0	3.0	77.4	64.7	5C48A
5SMC51A	51	56.7	65.2	1.0	3.0	82.4	60.7	5C51A
5SMC54A	54	60.0	69.0	1.0	3.0	87.1	57.5	5C54A
5SMC58A	58	64.4	74.1	1.0	3.0	93.6	53.5	5C58A
5SMC60A	60	66.7	76.7	1.0	3.0	96.8	51.7	5C60A
5SMC64A	64	71.1	81.8	1.0	3.0	103	48.6	5C64A
5SMC70A	70	77.8	89.5	1.0	3.0	113	44.3	5C70A
5SMC75A	75	83.3	95.8	1.0	3.0	121	41.4	5C75A
5SMC78A	78	86.7	99.7	1.0	3.0	126	39.7	5C78A
5SMC85A	85	94.4	108.2	1.0	3.0	137	36.5	5C85A
5SMC90A	90	100.0	115.5	1.0	3.0	146	34.3	5C90A
5SMC100A	100	111.0	128.0	1.0	3.0	162	30.9	5C100A
5SMC110A	110	122.0	140.5	1.0	3.0	177	28.3	5C110A

Notes: (1) Non-repetitive 10x1,000 μs pulse

R1 (10-September 2013)

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

TYPE	REVERSE STAND-OFF VOLTAGE	BREAKDOWN VOLTAGE		TEST CURRENT	MAXIMUM REVERSE LEAKAGE CURRENT	MAXIMUM CLAMPING VOLTAGE	PEAK PULSE CURRENT (Note 1)	MARKING CODE
	V _{RWM}	V _{BR} @ I _T		I _T	I _R @ V _{RWM}	V _C @ I _{PP}	I _{PP}	
	V	MIN V	MAX V	mA	µA	V	A	
5SMC120A	120	133.0	153.0	1.0	3.0	193	26.0	5C120A
5SMC130A	130	144.0	165.5	1.0	3.0	209	24.0	5C130A
5SMC150A	150	167.0	192.5	1.0	3.0	243	20.6	5C150A
5SMC160A	160	178.0	205.0	1.0	3.0	259	19.3	5C160A
5SMC170A	170	189.0	217.5	1.0	3.0	275	18.2	5C170A

SMC CASE - MECHANICAL OUTLINE

DIMENSIONS				
SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.002	0.008	0.05	0.20
C	0.305	0.320	7.75	8.13
D	0.006	0.012	0.15	0.31
E	0.079	0.103	2.00	2.62
F	0.260	0.280	6.60	7.11
G	0.108	0.128	2.75	3.25
H	0.220	0.245	5.59	6.22

SMC (REV: R2)

R1 (10-September 2013)

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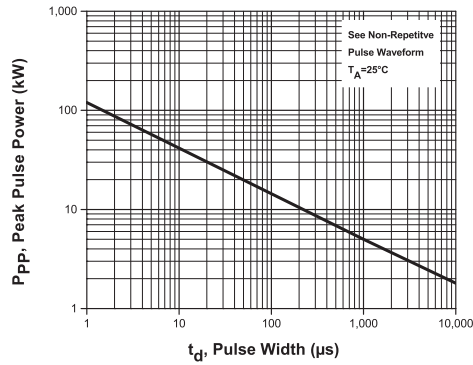


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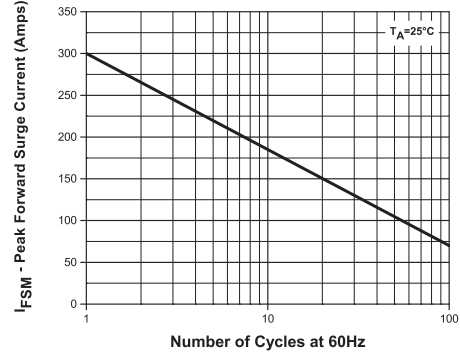


TYPICAL ELECTRICAL CHARACTERISTICS

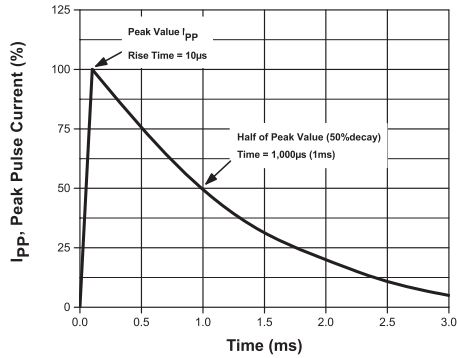
Peak Pulse Power



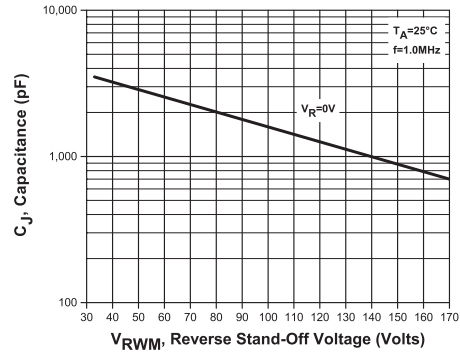
Maximum Non-Repetitive Peak Forward Surge Current



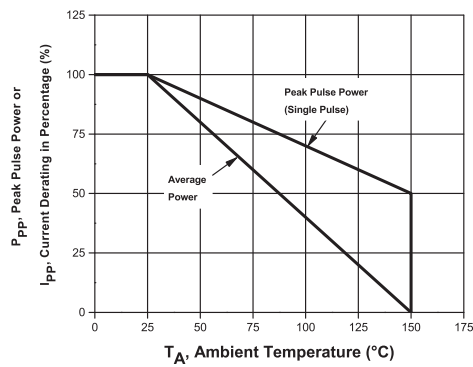
10x1,000μs Surge Current Waveform



Capacitance



Power & Current Derating



R1 (10-September 2013)

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.

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- 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

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Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

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Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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