

SPECIFICATION FOR APPROVAL

<p>CUSTOMER'S APPROVAL CHOP</p> <p>Approval's condition: _____</p> <p>Approved date: _____</p>
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KINDLY RETURN A SET WITH YOUR COMPANY'S OFFICIAL
STAMP ON APPROVAL OF THIS ITEM

CUSTOMER'S NAME: _____

CUSTOMER'S MODEL NO. : _____

CUSTOMER'S PART NO. : _____

DESCRIPTION: **Transient Voltage Suppressor**

Semitel'S MODEL NO. : **SMF Series**

VERSION: **A**

DATE: **2025/10/17**

Attachments:

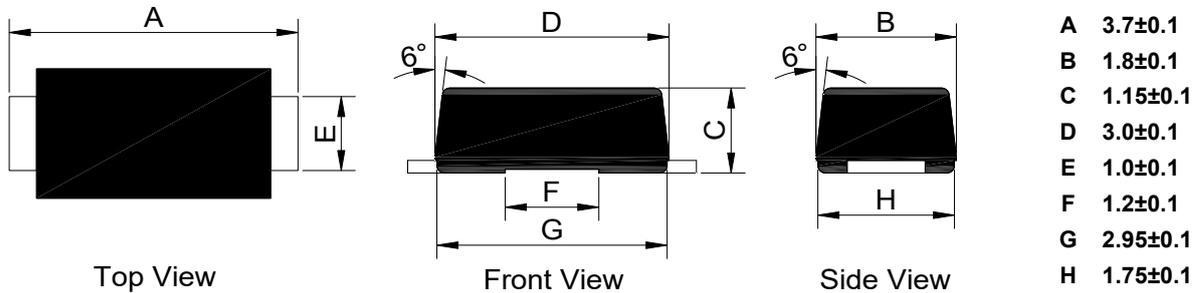
- Product specification
- Sample Qty. :
- Test Data

Prepared By	Checked By	Approved By
Hebe Deng 2025/10/17	Alvin Chen 2025/10/17	Eric Chang 2025/10/17

Semitel International Ltd.,	TEL: 886-2-86922121 FAX: 886-2-26483379
www.semitelint.com	11F., No. 43-5, Zhongxing Rd., Xizhi Dist., New Taipei City 221012, Taiwan

Product Specification

1. Physical Dimensions (Unit:mm)



2. Marking Information

BI- directional	UNI-directional

3. Maximum Ratings

Ratings at 25°ambient temperature unless otherwise specified

Rating	Symbol	Value	Unit
Peak pulse power dissipation at 10/1000us waveform ⁽¹⁾	P _{PPM}	200	W
Peak pulse current of at 10/1000us waveform ⁽¹⁾	I _{PPM}	See Table	A
Steady state power dissipation at TA=75°C	P _D	0.4	W
Peak forward surge current, 8.3ms single half sine wave unidirectional only	I _{FSM}	20	A
Thermal resistance	Between junction and lead	R _{θJL}	26
	Between junction and Ambient	R _{θJA}	300
	Between junction and Curve	R _{θJC}	40
Storage & operating temperature range	T _{STG} , T _J	-55 to 150	°C

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Product Specification

4. Electrical Characteristics (TA=25°C)

Part Number	Part Number	Marking		Reverse Stand off Voltage VR (Volts)	Breakdown Voltage VBR (Volts) @ IT		Test Current IT (mA)	Maximum Clamping Voltage VC @ Ipp (V)	Maximum Peak Pulse Current Ipp (A)	Maximum Reverse Leakage IR @ VR (µA)
					MIN	MAX				
SMF5.0A	SMF5.0CA	AE	WE	5	6.4	7	10	9.2	21.7	400
SMF6.0A	SMF6.0CA	AG	WG	6	6.67	7.37	10	10.3	19.4	400
SMF6.5A	SMF6.5CA	AK	WK	6.5	7.22	7.98	10	11.2	17.9	250
SMF7.0A	SMF7.0CA	AM	WM	7	7.78	8.6	10	12	16.7	100
SMF7.5A	SMF7.5CA	AP	WP	7.5	8.33	9.21	1	12.9	15.5	50
SMF8.0A	SMF8.0CA	AR	WR	8	8.89	9.83	1	13.6	14.7	25
SMF8.5A	SMF8.5CA	AT	WT	8.5	9.44	10.4	1	14.4	13.9	10
SMF9.0A	SMF9.0CA	AV	WV	9	10	11.1	1	15.4	13	5
SMF10A	SMF10CA	AX	WX	10	11.1	12.3	1	17	11.8	2.5
SMF11A	SMF11CA	AZ	WZ	11	12.2	13.5	1	18.2	11	2.5
SMF12A	SMF12CA	BE	XE	12	13.3	14.7	1	19.9	10.1	2.5
SMF13A	SMF13CA	BG	XG	13	14.4	15.9	1	21.5	9.3	1
SMF14A	SMF14CA	BK	XK	14	15.6	17.2	1	23.2	8.6	1
SMF15A	SMF15CA	BM	XM	15	16.7	18.5	1	24.4	8.2	1
SMF16A	SMF16CA	BP	XP	16	17.8	19.7	1	26	7.7	1
SMF17A	SMF17CA	BR	XR	17	18.9	20.9	1	27.6	7.2	1
SMF18A	SMF18CA	BT	XT	18	20	22.1	1	29.2	6.8	1
SMF20A	SMF20CA	BV	XV	20	22.2	24.5	1	32.4	6.2	1
SMF22A	SMF22CA	BX	XX	22	24.4	26.9	1	35.5	5.6	1
SMF24A	SMF24CA	BZ	XZ	24	26.7	29.5	1	38.9	5.1	1
SMF26A	SMF26CA	CE	YE	26	28.9	31.9	1	42.1	4.8	1
SMF28A	SMF28CA	CG	YG	28	31.1	34.4	1	45.4	4.4	1
SMF30A	SMF30CA	CK	YK	30	33.3	36.8	1	48.4	4.1	1
SMF33A	SMF33CA	CM	YM	33	36.7	40.6	1	53.3	3.8	1
SMF36A	SMF36CA	CP	YP	36	40	44.2	1	58.1	3.4	1
SMF40A	SMF40CA	CR	YR	40	44.4	49.1	1	64.5	3.1	1
SMF43A	SMF43CA	CT	YT	43	47.8	52.8	1	69.4	2.9	1

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					MIN	MAX				
Uni	Bi	Uni	Bi							
SMF45A	SMF45CA	CV	YV	45	50	55.3	1	72.7	2.8	1
SMF48A	SMF48CA	CX	YX	48	53.3	58.9	1	77.4	2.6	1
SMF51A	SMF51CA	CZ	YZ	51	56.7	62.7	1	82.4	2.4	1
SMF54A	SMF54CA	RE	ZE	54	60	66.3	1	87.1	2.3	1
SMF58A	SMF58CA	RG	ZG	58	64.4	71.2	1	93.6	2.1	1
SMF60A	SMF60CA	RK	ZK	60	66.7	73.7	1	96.8	1.8	1
SMF64A	SMF64CA	RM	ZM	64	71.1	78.6	1	103	1.7	1
SMF70A	SMF70CA	RP	ZP	70	77.8	86	1	113	1.5	1
SMF75A	SMF75CA	RR	ZR	75	83.3	92.1	1	121	1.4	1
SMF78A	SMF78CA	RT	ZT	78	86.7	95.8	1	126	1.4	1
SMF85A	SMF85CA	RV	ZV	85	94.4	104	1	137	1.3	1
SMF90A	SMF90CA	RX	ZX	90	100	111	1	146	1.2	1
SMF100A	SMF100CA	RZ	ZZ	100	111	123	1	162	1.1	1
SMF110A	SMF110CA	SE	VE	110	122	135	1	177	1	1
SMF120A	SMF120CA	SG	VG	120	133	147	1	193	0.9	1
SMF130A	SMF130CA	SK	VK	130	144	159	1	209	0.8	1
SMF150A	SMF150CA	SM	VM	150	167	185	1	243	0.7	1
SMF160A	SMF160CA	SP	VP	160	178	197	1	259	0.7	1
SMF170A	SMF170CA	SR	VR	170	189	209	1	275	0.6	1
SMF180A	SMF180CA	ET	CET	180	201	222	1	292	0.5	1
SMF190A	SMF190CA	EV	CEV	190	211	232	1	308	0.5	1
SMF200A	SMF200CA	EX	CEX	200	224	247	1	324	0.5	1
SMF220A	SMF220CA	E22	CE22	220	246	272	1	356	0.5	1
SMF250A	SMF250CA	E25	CE25	250	279	309	1	405	0.5	1
SMF300A	SMF300CA	E30	CE30	300	335	371	1	486	0.45	1
SMF350A	SMF350CA	E35	CE35	350	391	432	1	567	0.4	1
SMF400A	SMF400CA	E40	CE40	400	447	494	1	648	0.35	1
SMF440A	SMF440CA	E44	CE44	440	492	543	1	713	0.3	1

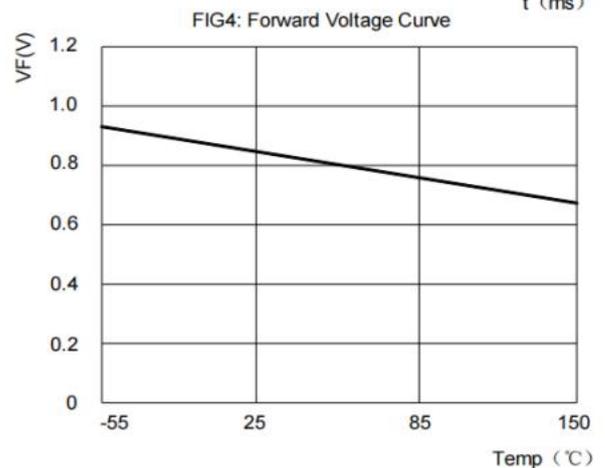
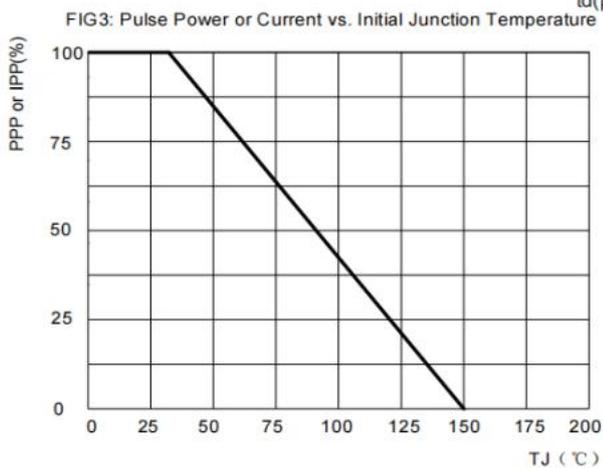
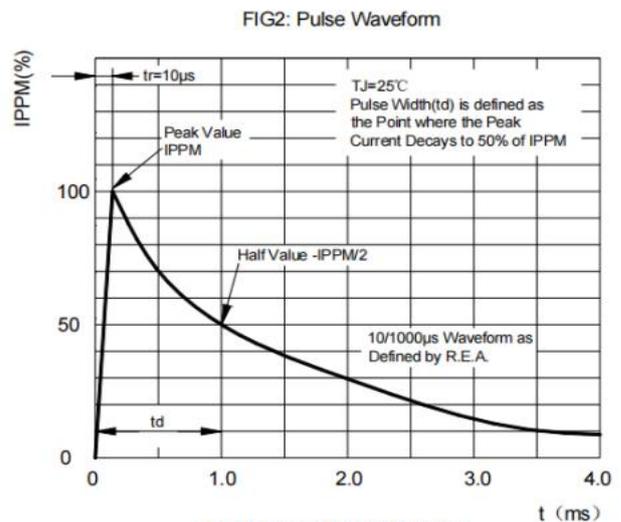
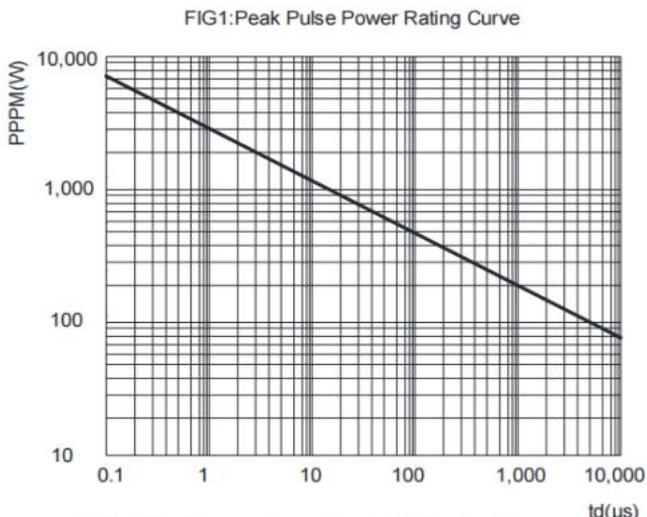
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Notes:

- (1) Non repetitive current pulse, per Fig2 and derated above TA=25C per Fig3.
- (2) TL=30°C unless otherwise noted, VF ≤ 1.25V@200mA
- (3) Measured on 8.3ms single half sine wave or equivalent square wave, duty cycle=4 pulses per minute maximum
- (4) tp ≤ 50ms Pulse test: tp ≤ 50ms.
- (5) Surge current waveform per Fig. 2 and derated per Fig.3.
- (6) For bi-directional types having VRWM of 10 V and less, the IR limit is doubled.

5. Ratings and Characteristic Curves (TA =25°C unless otherwise noted)



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