



1. Protection Solution To Meet

- IEC61000-4-2 (ESD) $\pm 30\text{kV}$ (air), $\pm 30\text{kV}$ (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 200A (8/20 μs)

2. Features

- Protects one Power line
- Low clamping voltage
- Working voltage: 12V, 15V, 18V, 20V, 22V, 24V, 28V
- Low leakage current
- High Peak Pulse Power 5600W(8/20 μs)

3. Main Application

- Fast-charge battery chargers
- Power management system
- DC Power

- SOD-123FL package
- Molding compound flammability rating: UL 94V-0

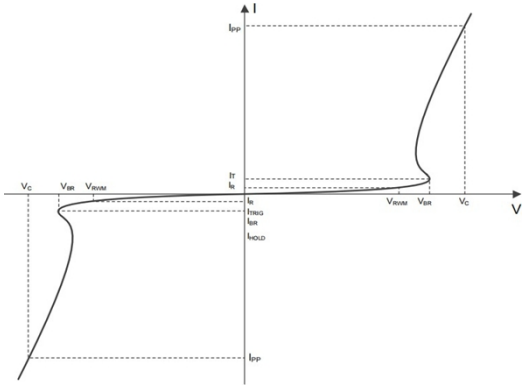
5. Absolute Maximum Ratings($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2 (Contact)	$V_{\text{ESD-Contact}}$	± 30	KV
ESD per IEC 61000-4-2 (Air)	$V_{\text{ESD-Air}}$	± 30	KV
Peak Pulse Power(8/20us)	P_{pp}	5600	W
Operating Temperature	T_{OPT}	-55~+150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55~+150	$^\circ\text{C}$

6. Electrical Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Part Number	Marking	Direction	V_R	$V_{BR}@ I_T$		I_T	V_C	I_{PP}	$I_R@V_R$
			(V)	(V)min	(V)max	(mA)	(V) max	(A)	(μA) max
SMF12AH	12AH	Uni	12	13.0	15.0	1	28	200	1
SMF12CAH	12CH	Bi	12	13.0	15.0	1	28	200	1
SMF15AH	15AH	Uni	15	16.0	19.8	1	30	200	1
SMF15CAH	15CH	Bi	15	16.0	19.8	1	30	200	1
SMF18AH	18AH	Uni	18	19.0	22.8	1	32	200	1
SMF18CAH	18CH	Bi	18	19.0	22.8	1	32	200	1
SMF20AH	20AH	Uni	20	21.8	24.7	1	32	200	1
SMF20CAH	20CH	Bi	20	21.8	24.7	1	32	200	1
SMF22AH	22AH	Uni	22	23.8	27.5	1	32	200	1
SMF22CAH	22CH	Bi	22	23.8	27.5	1	32	200	1
SMF24AH	24AH	Uni	24	24.8	30.0	1	32	180	1
SMF24CAH	24CH	Bi	24	24.8	30.0	1	32	180	1
SMF28AH	28AH	Uni	28	28.8	34.5	1	35	170	1
SMF28CAH	28CH	Bi	28	28.8	34.5	1	35	170	1

7. Electrical Parameters

Symbol	Parameter	
I_{PP}	Maximum Reverse Peak Pulse Current	
V_C	Clamping Voltage @ I_{PP}	
V_{RWM}	Working Peak Reverse Voltage	
I_R	Maximum Reverse Leakage Current@ V_{RWM}	
I_T	Test Current	
V_{BR}	Breakdown Voltage @ I_T	
P_{PK}	Peak Power Dissipation	

8. Typical Characteristics

Fig.1 8/20us Waveform Per IEC6100-4-5

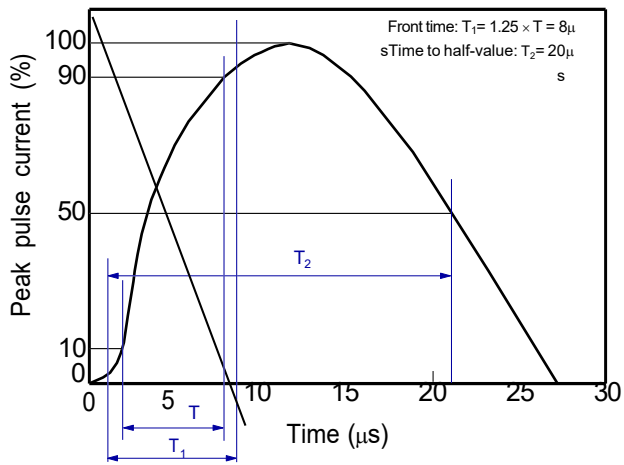


Fig.2 Contact Discharge Current Waveform per IEC61000-4-2

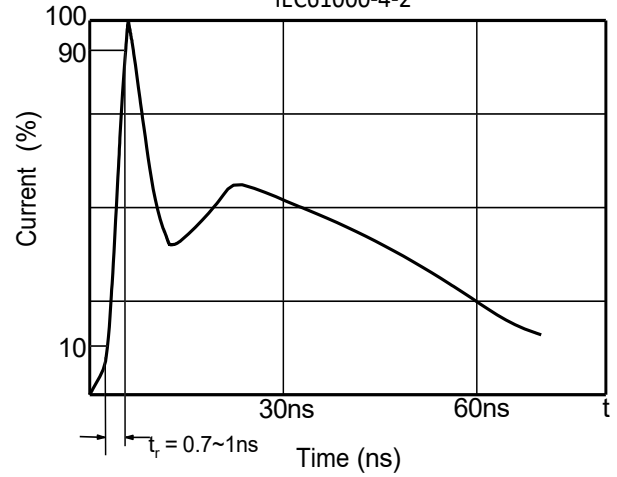
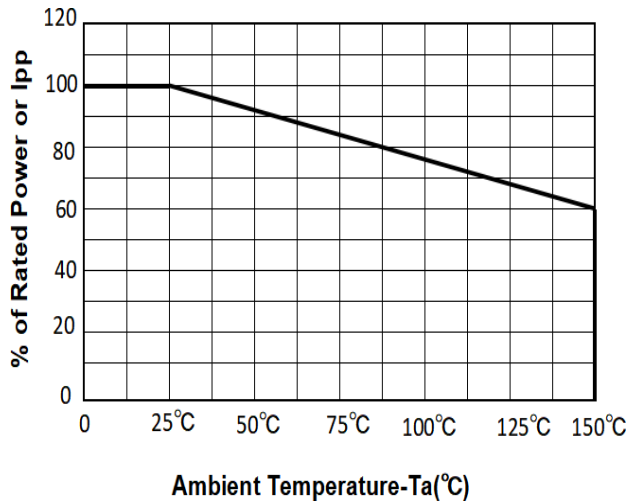


Fig.3 Power Derating



The curve above is for reference only.