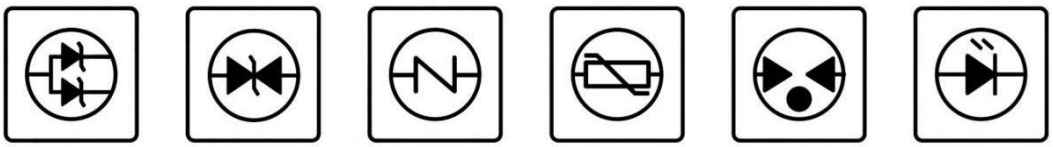
MSKSEMI 美森科
SEMICONDUCTOR



POSTXXC

Product specification

FEATURES

- IEC61000-4-2 (ESD) ±30kV (Contact)
- ±30kV (Air)
- IEC61000-4-4 (EFT) 40A (5/50ηs)
- 350 Watts Peak Pulse Power per (tp=8/20μs)
  Protects one bidirectional line or two
- unidirectional lines
- Low clamping voltage
- Working voltages: 3.3V to 36V
- Low leakage current

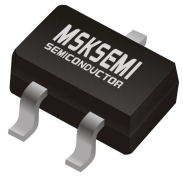
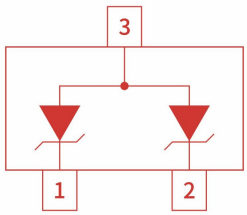
MACHANICAL DATA

- SOT-23 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranteed:
- 260C/10s
- Reel size: 7 inch
- MSL 1

APPLICATIONS

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports.
- Peripherals

Reference News

PACKAGE OUTLINE	PIN CONFIGURATION
	
SOT-23	

Marking for the SMXX series

VRWM	3.3V	5V	8V	12V	15V	18V	20V	24V	36V
Marking	M03	M05	M08	M12	M15	M18	M20	M24	M36

ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Value	Units
VESD	ESD per IEC 61000-4-2 (Contact) ESD per IEC 61000-4-2 (Air)	±30 ±30	kV
PPP	Peak Pulse Power (8/20μs)	350	W
TOPT	Operating Temperature	-55~125	°C
TSTG	Storage Temperature	-55~150	°C
TL	Lead Soldering Temperature	260(10 sec)	°C

ELECTRICAL CHARACTERISTICS (Tamb=25℃)

PART NUMBER	V RWM (V) (max.)	V B (V) (min.)	IT (mA)	VC @1 A (V) (max.)	VC (V) (max.)	(@A)	IR (μA) (max.)	CT (pF) (max.)
PSOT03C	3.3	4	1	7.0	14	20	40	450
PSOT05C	5	6	1	9.8	18	17	10	300
PSOT08C	8	8.5	1	13.4	24	15	2	240
PSOT12C	12	13.3	1	19	32	11	1	130
PSOT15C	15	16.7	1	24	38	10	1	120
PSOT18C	18	20	1	29	45	9	1	100
PSOT20C	20	22.3	1	35	50	8	1	90
PSOT24C	24	26.7	1	43	52	7	1	80
PSOT36C	36	40	1	60	75	5	1	60

ELECTRICAL CHARACTERISTICS CURVE

Fig 1 8/20μs Waveform per IEC61000-4-5

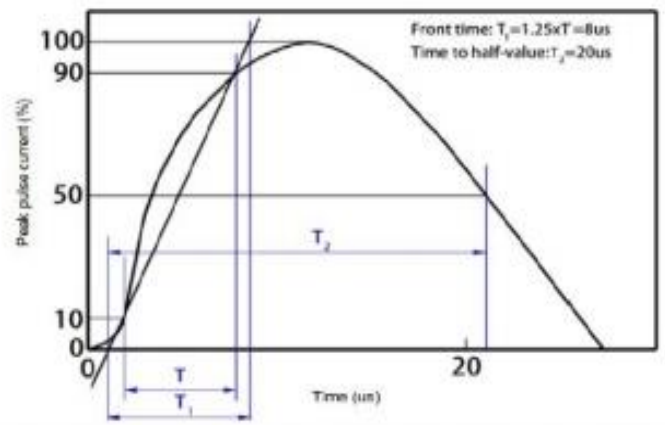


Fig 2 Contact Discharge Current Waveform per IEC 61000-4-2)

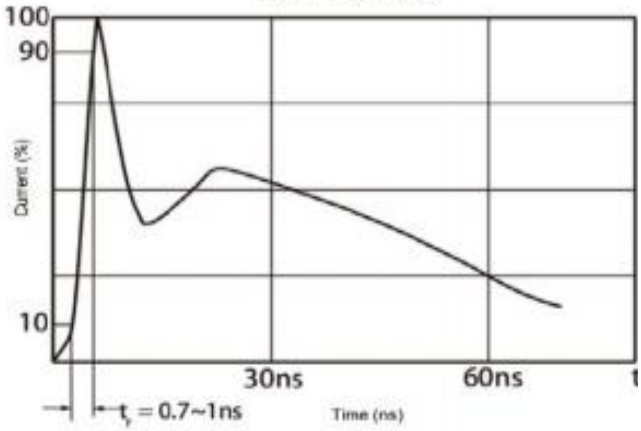


Fig 3 Voltage vs Capacitance

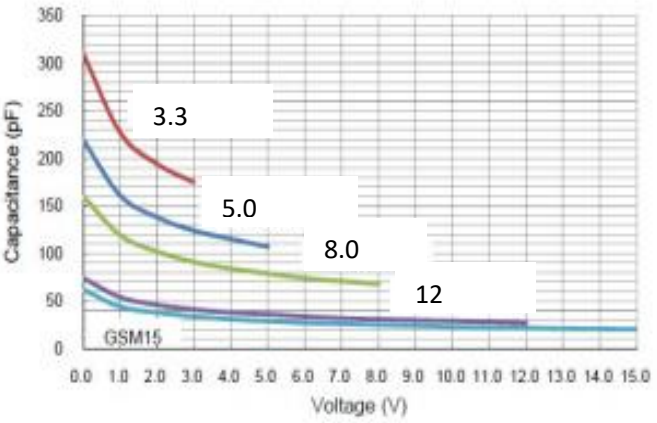


Fig 4 Voltage vs Capacitance

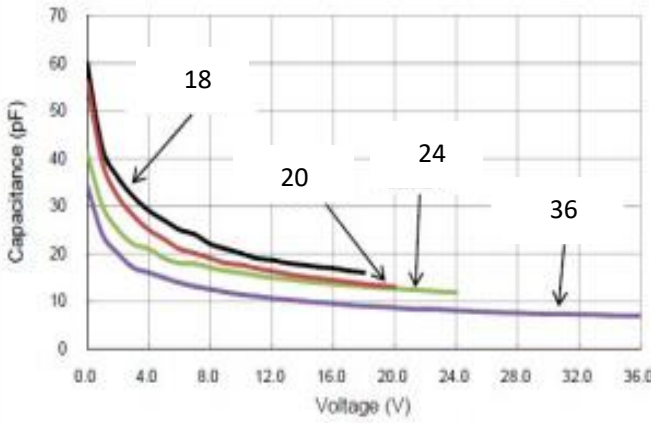


Fig 5 Clamping Voltage vs Peak Pulse Current

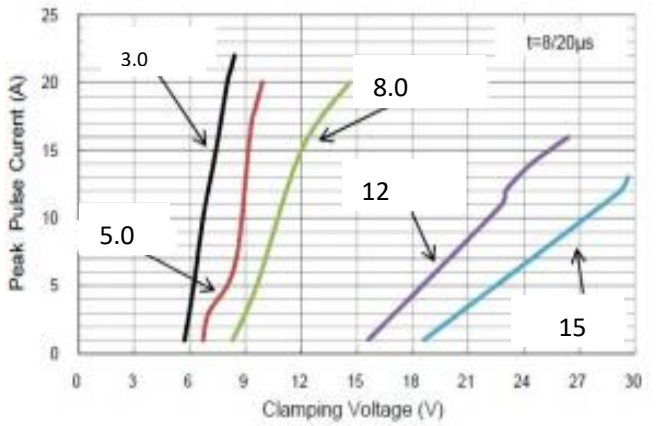
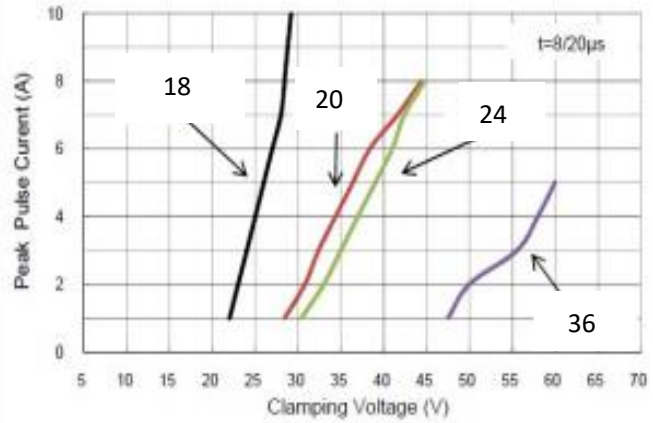
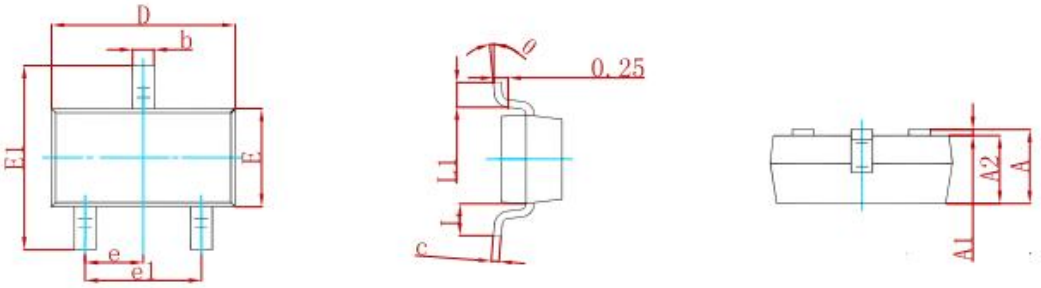


Fig 6 Clamping Voltage vs Peak Pulse Current

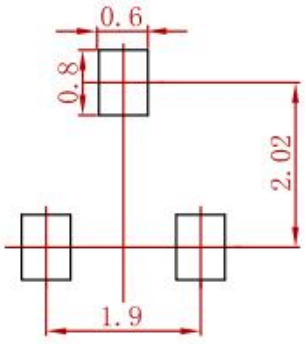


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:
1.Controlling dimension:In millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
PSOTXXC	SOT-23	3000

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