

## Features

- ◆ Ultra low leakage: nA level
- ◆ Low operating voltage: 5V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge:  $\pm 30\text{kV}$
    - Contact discharge:  $\pm 30\text{kV}$
  - IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ ROHS Compliant

## Ordering Information

Part Number	Qty per Reel	Reel Size
SMS05C	3000	7"

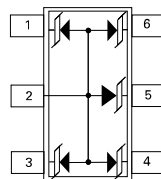
## Mechanical Characteristics

- ◆ Package: SOT23-6
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: "Green" Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 3 per J-STD-020

## Applications

- ◆ Cell phone Handsets and Accessories
- ◆ Microprocessor Based Equipment
- ◆ Personal Digital Assistants (PDA's) and Pagers
- ◆ Desktops PC and Servers
- ◆ Notebook, Laptop, and Palmtop Computers
- ◆ Portable Instrumentation
- ◆ Peripherals

## Dimensions and Pin Configuration



**Absolute Maximum Ratings** ( $T_{amb}=25^{\circ}C$  unless otherwise specified)

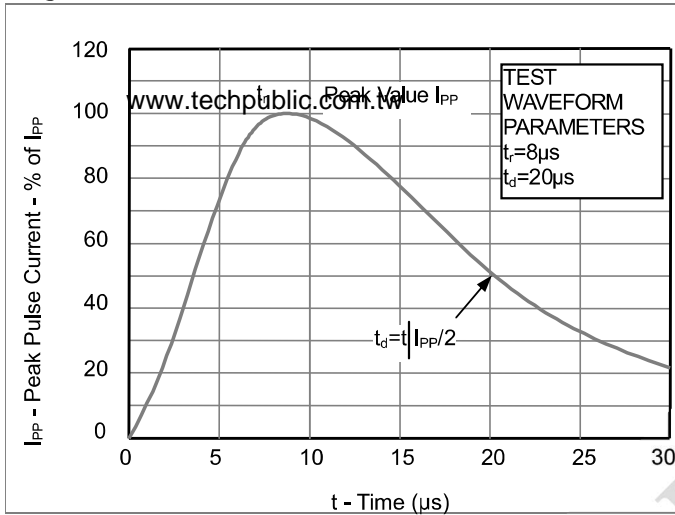
Parameter	Symbol	Value	Unit
ESD per IEC61000 2 (Air) ESD per IEC61000-4-2 (Contact)	$V_{ESD}$	$\pm 30$ $\pm 30$	kV
Operating Temperature Range	$T_J$	-55 to +125	$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-55 to +150	$^{\circ}C$

**Electrical Characteristics** ( $T_A=25^{\circ}C$  unless otherwise specified)

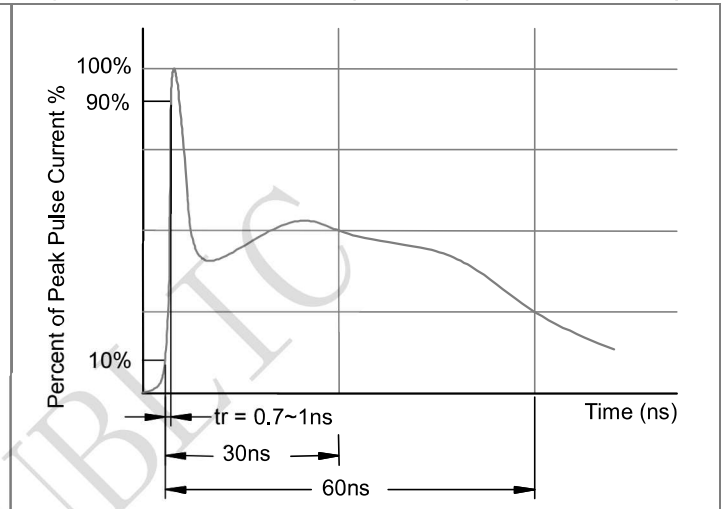
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	$V_{RWM}$			5	V	
Breakdown Voltage	$V_{BR}$	6		9	V	$I_T=1mA$
Leakage Current	$I_{Leak}$			100	nA	$V_{RWM}=5V$
Clamping Voltage	$V_C$			11	V	$I_{PP}=4.5A, T_p=8/20\mu s$
Clamping Voltage	$V_C$			14	V	$I_{PP}=10A, T_p=8/20\mu s$
Junction Capacitance (I/O to GND)	$C_J$		60	90	pF	$V_R=0V, f=1MHz,$
Junction Capacitance (I/O to I/O )	$C_J$		30		pF	$V_R=0V, f=1MHz,$

**Typical Performance Characteristics ( $T_A=25^\circ\text{C}$  unless otherwise Specified)**

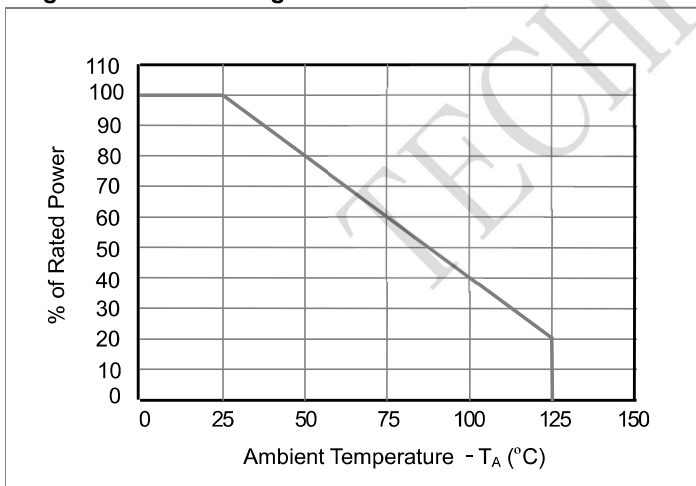
**Fig1. 8/20 $\mu\text{s}$  Pulse Waveform**



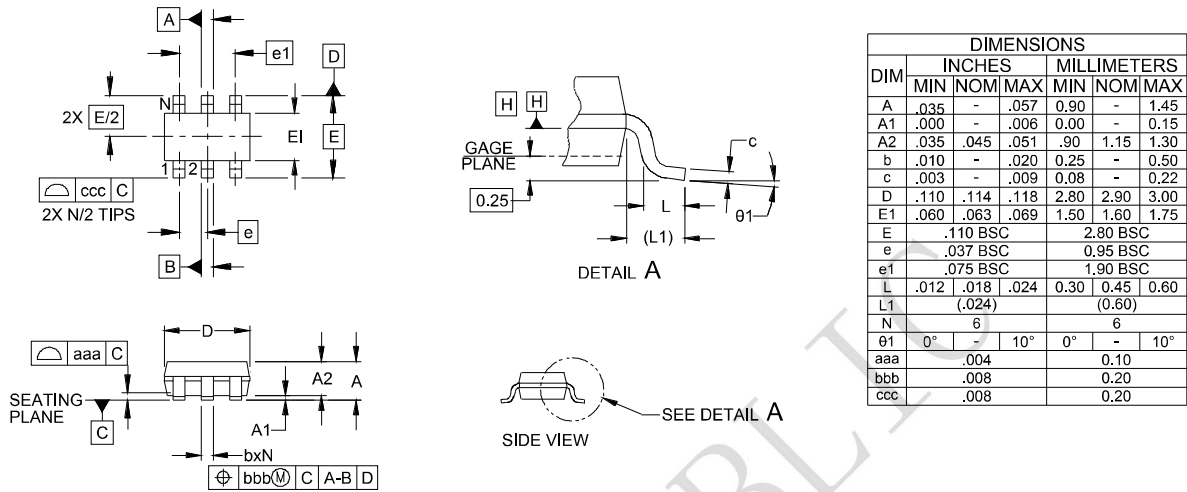
**Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)**



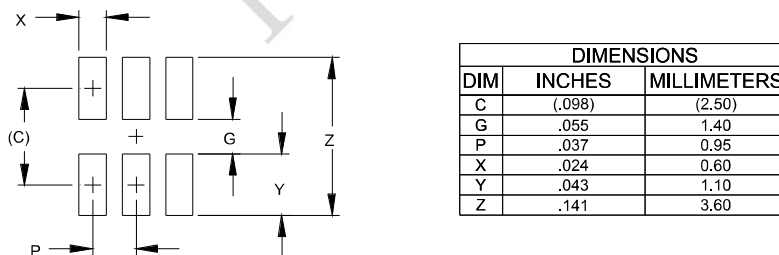
**Fig3. Power Derating Curve**



**Outline Drawing - SOT23-6**



**Land Pattern - SOT23-6**



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