

Features

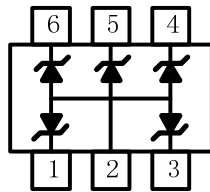
- Working voltage: 5V
- Low clamping voltage
- Protects five I/O lines
- Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±15kV
 - Contact discharge: ±8kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- RoHS Compliant

Mechanical Characteristics

- Package: SOT-363 (2.0X2.1X0.35mm)
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020

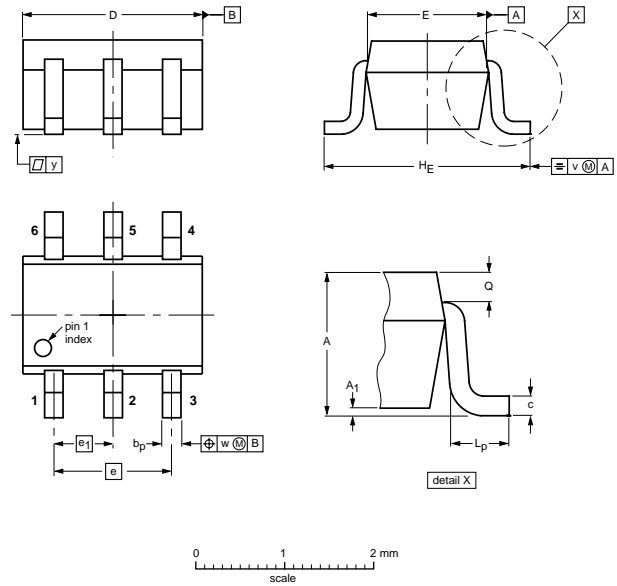
Applications

- Portable Instrumentation
- Microprocessor Based Equipment
- Cell Phone Handsets and Accessories
- Personal Digital Assistants (PDAs) and Pagers



Pin Configuration

SOT-363



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1

Ordering information

Order code	Package	Making
SMF05CT1G	SOT-363	6J

Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	P _{pk}	100	W
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±15	kV
ESD per IEC 61000-4-2 (Contact)		±8	
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

SMF05CT1G

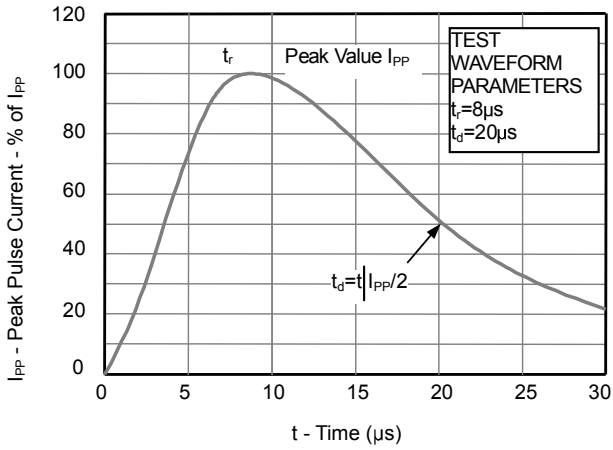
Electrical Characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V_{RWM}			5	V	
Breakdown Voltage	V_{BR}	6			V	$I_T = 1\text{mA}$
Reverse Leakage Current	I_R			0.1	μA	$V_{RWM} = 5\text{V}$
Forward Voltage	V_F			1.2	V	$I_F = 15\text{mA}$
Clamping Voltage	V_C			10	V	$I_{PP} 1A=(8 \times 20\mu\text{s pulse})$
Junction Capacitance	C_J		30		pF	$V_R = 0\text{V}, f = 1\text{MHz}$

Note 1: I/O pins are Pin 1, 3, 4, 5 and 6

RATING AND CHARACTERISTIC CURVES (SMF05CT1G)

Fig1. 8/20 μ s Pulse Waveform



g2. ESD Pulse Waveform (according to IEC 61000-4-2)

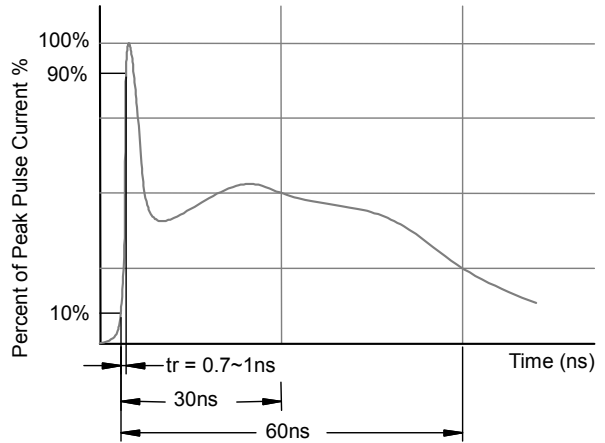


Fig3. Power Derating Curve

