

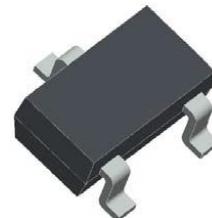
Transient Voltage Suppressors for ESD Protection

SE05T2C02GK

Features

- ◆ Working voltage: 5V
- ◆ Low leakage current: $0.1\mu\text{A}$ @ V_{RWM}
- ◆ Low clamping voltage
- ◆ Response Time is < 1 ns

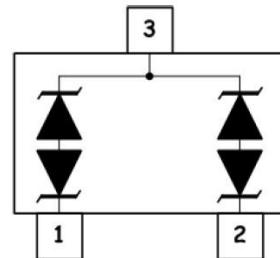
SOT-23



Applications

- ◆ Portable Instrumentation.
- ◆ Networking and Telecom.
- ◆ Serial and Parallel Ports.
- ◆ Peripherals.

Pin Configuration



Mechanical Characteristics

- ◆ SOT-23 Package
- ◆ Molding Compound Flammability Rating: UL 94V-0
- ◆ Quantity Per Reel: 3,000pcs
- ◆ Reel Size: 7 inch

Absolute Maximum Rating

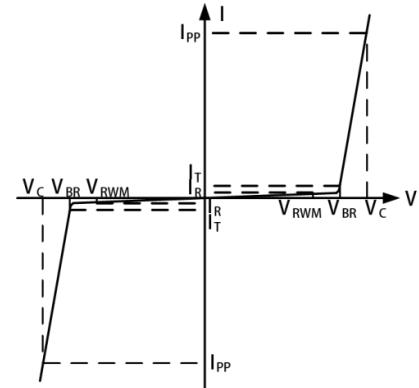
Symbol	Parameter	Value	Units
T_{LST}	Lead Soldering Temperature	260 (10sec)	°C
T_{STG}	Storage Temperature Range	-55 to +150	°C
T_{OPT}	Operating Temperature Range	-55 to +150	°C
V_{ESD}	ESD per IEC 61000-4-2(Air)	±15	KV
	ESD per IEC 61000-4-2 (Contact)	±8	

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I-V Curve Characteristics

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



Bi-Directional TVS

Electrical Characteristics (@ $T_A=25^\circ\text{C}$ Unless Otherwise Specified)

Symbol	Test Condition	Minimum	Typical	Maximum	Units
V_{RWM}	--	--	--	5	V
I_R	$V_{RWM}=5\text{V}, T=25^\circ\text{C}$	--	--	0.1	μA
V_{BR}	$I_T=1\text{mA}$	6	--	--	V
V_C	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$	--	14	--	V
V_C	$I_{PP}=4\text{A}, t_p=8/20\mu\text{s}$	--	22	--	V
C_J	$V_R=0\text{V}, f=1\text{MHz}$	--	0.3	--	pF

Electrical Characteristic Curves

Fig1. Pulse Waveform

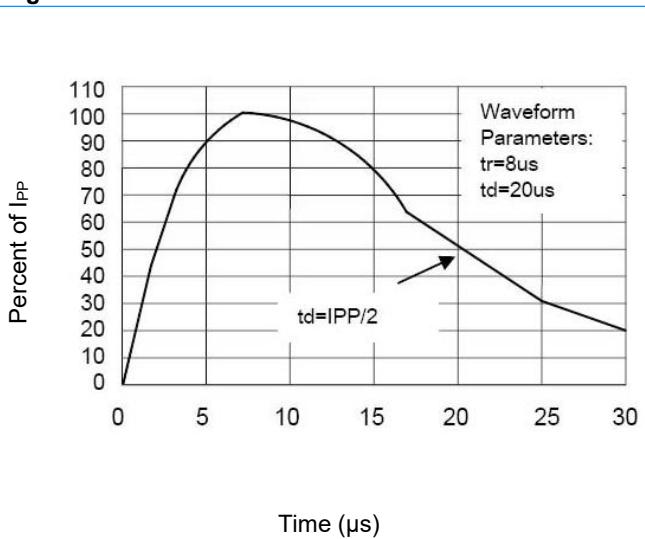
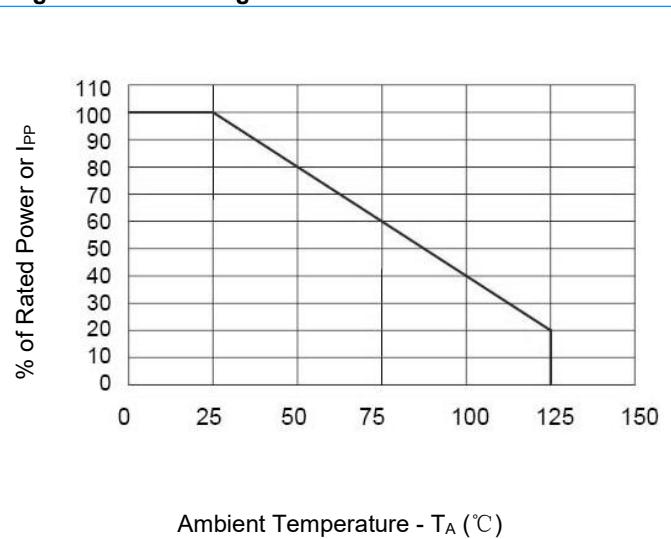


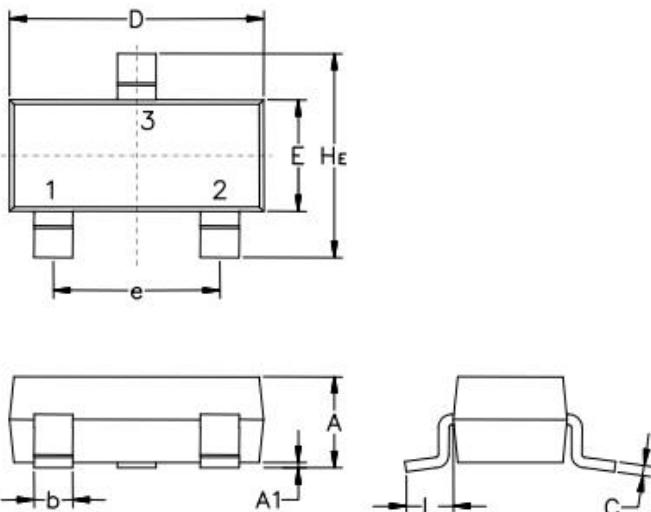
Fig2. Power Derating Curve



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SOT-23 Package Outline & Dimensions



Symbol	Millimeters		
	Min.	Nom.	Max.
A	0.89	1.00	1.11
A1	0.01	0.06	0.10
b	0.37	0.44	0.50
c	0.09	0.13	0.18
D	2.80	2.90	3.04
E	1.20	1.30	1.40
e	1.78	1.90	2.04
L	0.35	0.54	0.69
H_E	2.10	2.40	2.64

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