

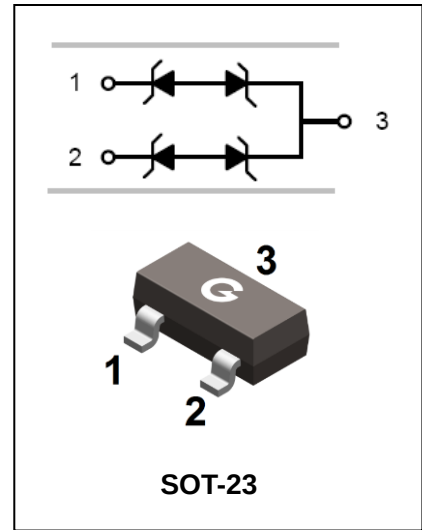
ESD Protection Device

SM05BCL

FEATURES

- 100 watts peak pulse power.(tp=8/20us)
- Transient protection for data&power lines to
IEC 61000-4-2(ESD)15Kv(air),8kV(contanct)
IEC 61000-4-4(EFT)40A(tp=5/50ns)
IEC 61000-4-5(Lighting)12A(tp=1.2/50us)
- Protects one bidirectional line or two unidirectional lines
- Working Voltage: 5V
- Low clamping voltage
- Solid-state silicon avalanche technology

HF



APPLICATIONS

- Cellular Handsets and Accessories.
- Portable Electronics.
- Industrial Controls.
- Set-Top Box.
- Servers, Notebook, and Desktop PC.

ORDERING INFORMATION

Type No.	Marking	Package Code
SM05BCL	05BCL	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Ratings	Units
P _{PK}	Peak Pulse Power(tp=8/20us)	100	Watts
R _{θJA}	Thermal Resistance,Junction to Ambient	556	℃/W
T _L	Lead Soldering Temperature	260(10sec.)	℃
T _J	Operating Temperature	150	℃
T _{STG}	Storage Temperature	-40 to +150	℃

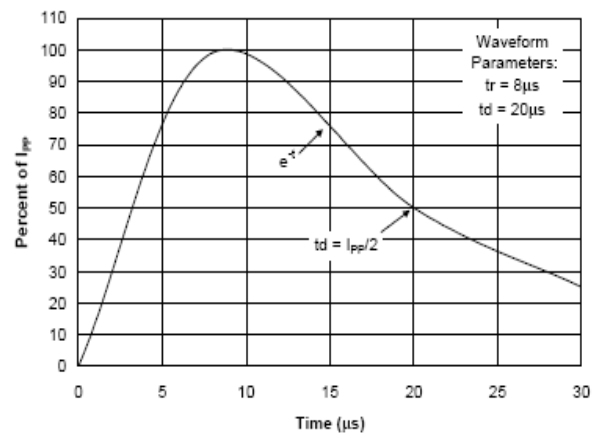
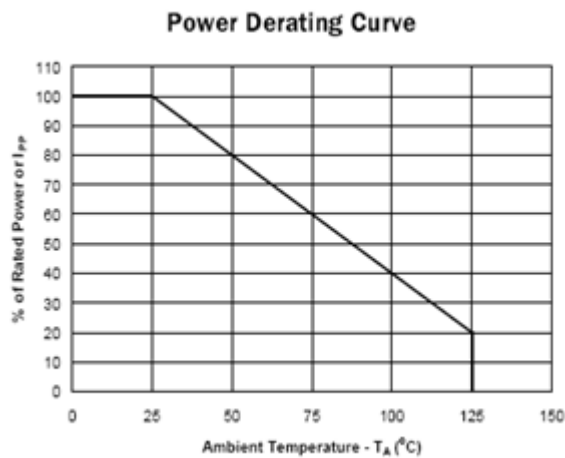
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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Reverse Stand-Off Voltage	V_{RWM}		-	-	5	V
Reverse Breakdown Voltage	V_{BR}	$I_Z = \pm 1mA$	5.8	-	8	V
Reverse Leakage Current	I_R	$V_{RWM} = 5V$	-	-	1	μA
Clamping Voltage	V_C	$I_{PP} = 5A, t_p = 8/20\mu s$	-	-	10	V
		$I_{PP} = 9A, t_p = 8/20\mu s$			12.5	
Maximun Peak Pulse Current	I_{PP}	$t_p = 8/20\mu s$	-	-	9	A
Junction Capacitance	C_j	Pin 1 to 3 and Pin 2 to 3 $V_R = 0V, f = 1MHz$	-	9.8	15	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



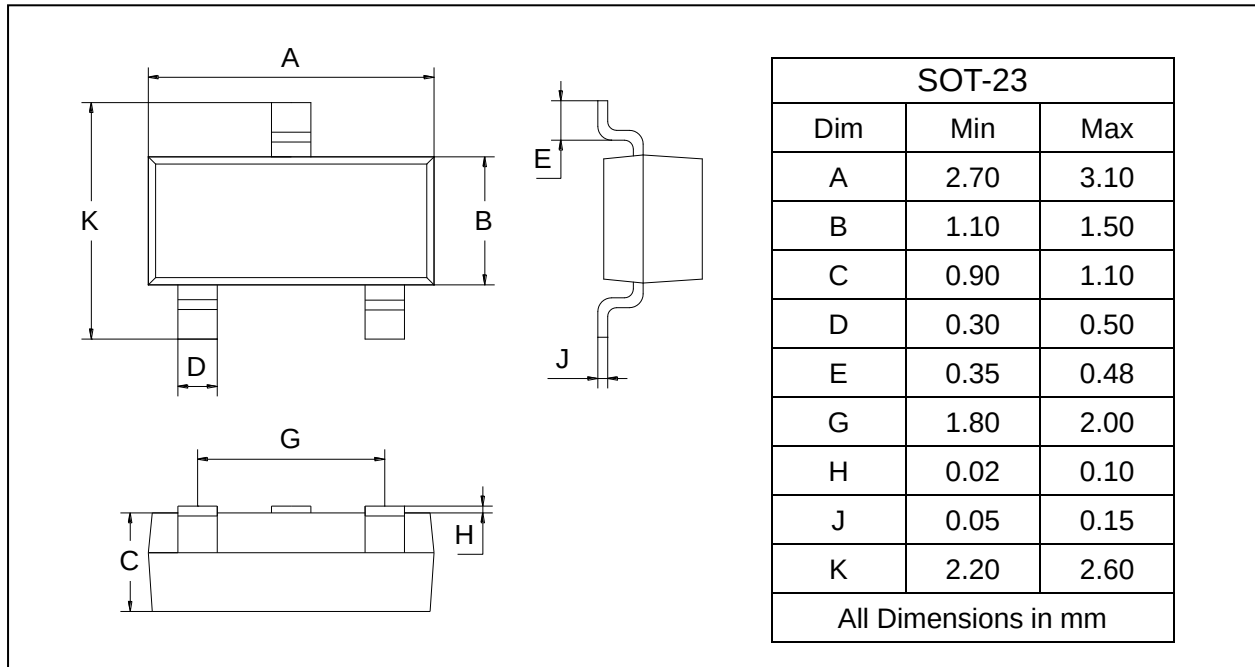
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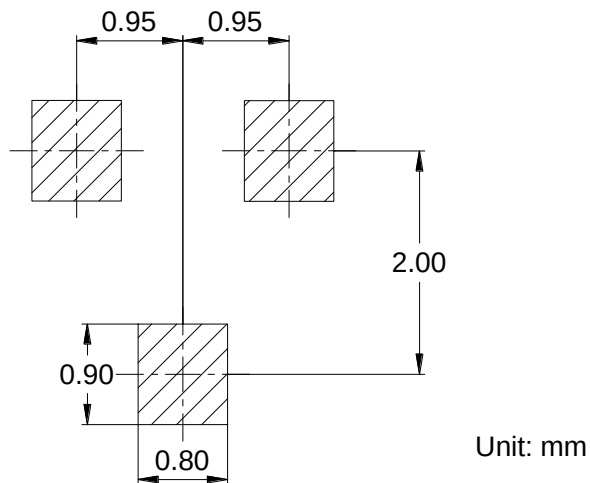
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
SM05BCL	SOT-23	3000 pcs / Tape & Reel