

Double ESD protection diodes in SOT23 package

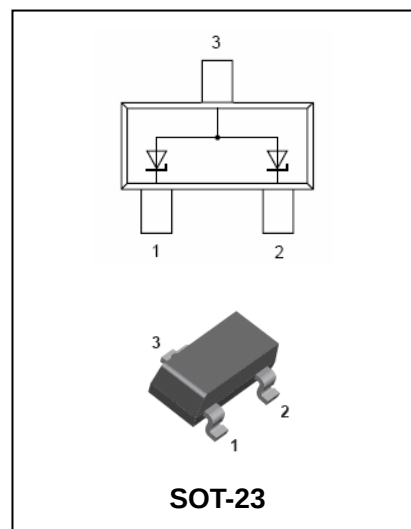
PESD5V2S2UT

FEATURES

- Uni-directional ESD protection of up to 2 lines.
- Low clamping voltage: $V_{(CL)R}=20V$ at $I_{PP}=18A$.
- Max. peak pulse power: $P_{PP}=330W$ at $t_p=8/20ms$.
- Ultra-low reverse leakage current: $I_{RM}<700nA$.
- ESD protection >23 kV
- ICE 61000-4-2; level 4(ESD).
- IEC 61000-4-5(surge); $I_{PP}=18A$ at $t_p=8/20us$.



Lead-free



APPLICATIONS

- High speed data lines.
- Parallel ports.
- Computers and peripherals.
- Communication systems.
- Audio and video equipment.

ORDERING INFORMATION

Type No.	Marking	Package Code
PESD5V2S2UT	U1	SOT-23

MAXIMUM RATING @ $T_a=25^{\circ}C$ unless otherwise specified

Symbol	Parameter	Value	Units
V_{RWM}	Reverse stand-off voltage	5.2	V
C_d	Diode capacitance	152	pF
P_{PP}	peak pulse power(8/20 μs pulse)	260	W
I_{PP}	peak pulse current(8/20 μs pulse)	15	A
T_j, T_{stg}	Junction and Storage Temperature	-65 to +150	$^{\circ}C$



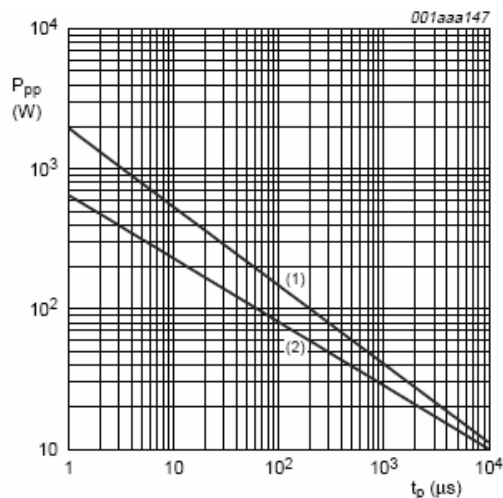
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ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Reverse stand-off voltage	V_{RWM}				5.2	V
Reverse leakage current	I_{RM}	$V_{RWM}=5.2V$		0.15	1	μA
Clamping voltage	$V_{(CL)R}$	$I_{PP}=1A$			9	V
		$I_{PP}=15A$			20	V
Breakdown voltage	V_{BR}	$I_Z=5mA$	6.4	6.8	7.2	V
Differential resistance	R_{diff}	$I_R=1mA$			80	Ω
Diode capacitance	C_d	$F=1MHz; V_R=0V$		152	200	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



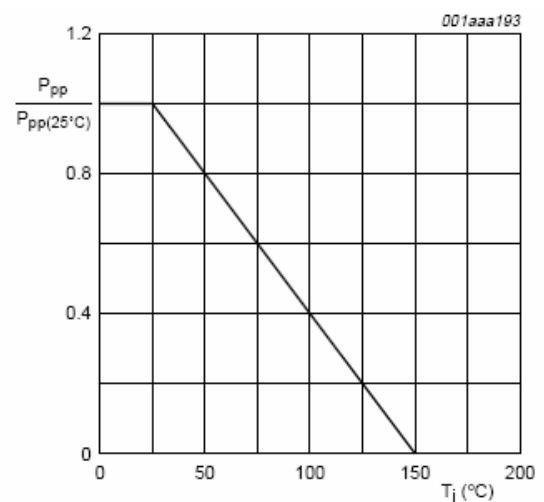
(1) PESD3V3S2UT and PESD5V2S2UT.

(2) PESD12VS2UT, PESD15VS2UT, PESD24VS2UT

$T_{amb} = 25^\circ C$.

$t_p = 8/20 \mu s$ exponential decay waveform; see Fig.2.

Peak pulse power dissipation as a function of pulse time; typical values.



Relative variation of peak pulse power as a function of junction temperature; typical values.



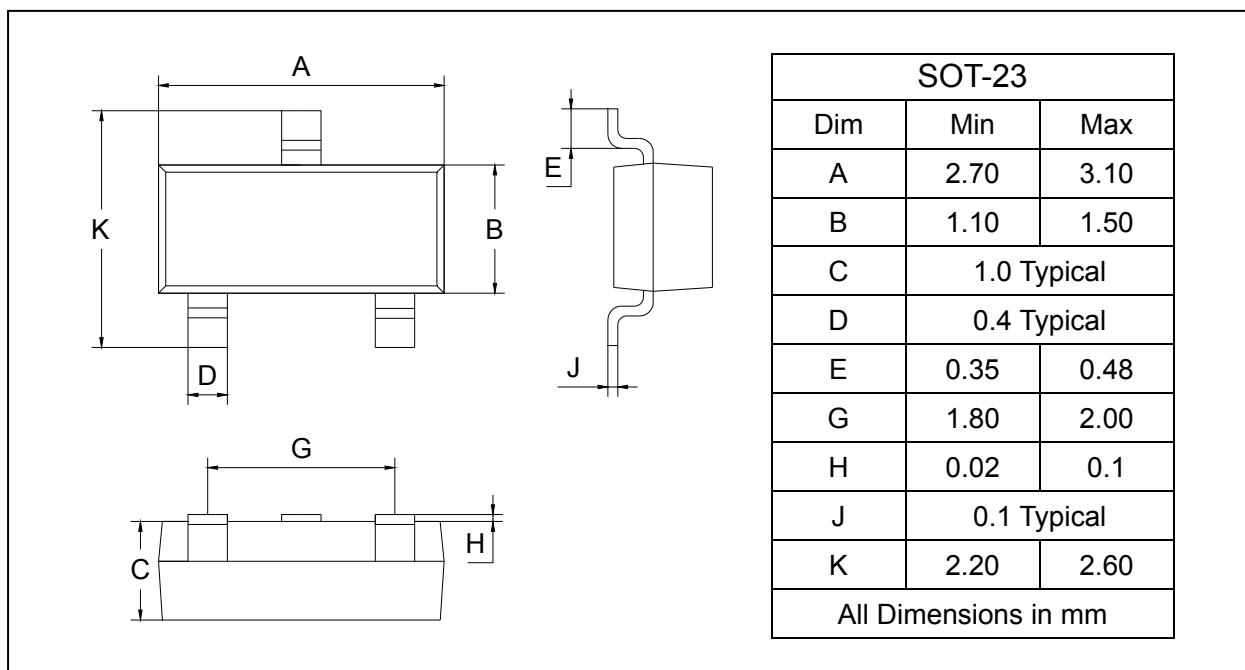
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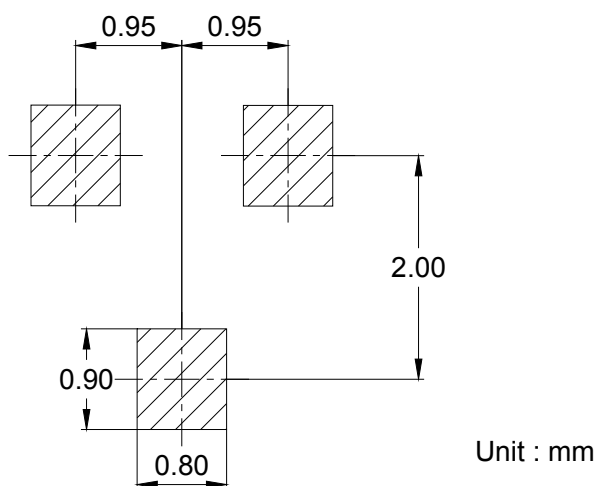
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
PESD5V2S2UT	SOT-23	3000/Tape&Reel