

Features

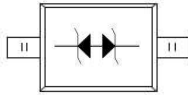
300W peak pulse power (8/20 μ s)
 Protects one data or power line
 Ultra low leakage: nA level
 Operating voltage: 5V
 Ultra low clamping voltage
 Complies with following standards:
 IEC 61000-4-2 (ESD) immunity test
 Air discharge: \pm 30kV
 Contact discharge: \pm 30kV
 IEC61000-4-4 (Lightning) 20A (8/20ns)

Mechanical Characteristics

Package: SOD-323
 Lead Finish: Matte Tin
 Case Material: "Green" Molding Compound.
 UL Flammability Classification Rating 94V-0
 Moisture Sensitivity: Level 3 per J-STD-020
 Terminal Connections: See Diagram Below

Applications

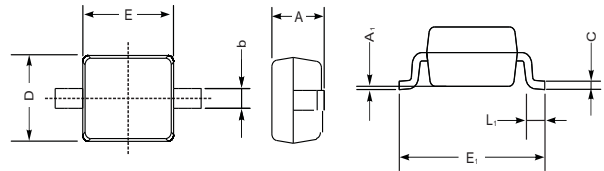
Cellular Handsets and Accessories
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 Desktop and Servers



Ordering information

Order code	Package	Making
PESD5V0S1BA	SOD-323	E6

SOD323



UNIT		A	C	D	E	E ₁	b	L ₁	A ₁
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—
mil	max	43	5.9	55	70	108	16	16	8
	min	32	3.1	47	63	100	9.8	7.9	—

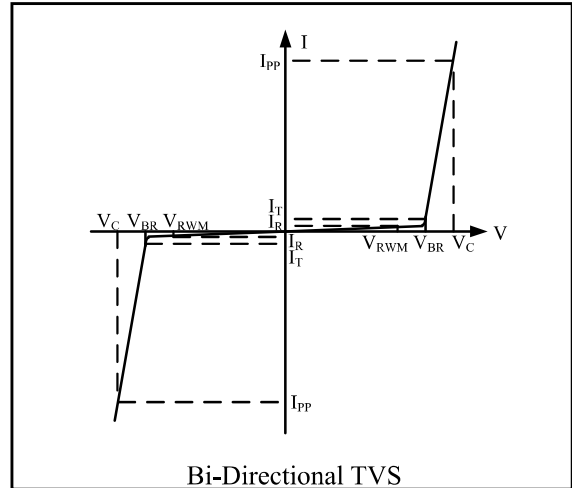
Absolute Maximum Ratings (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20 μ s)	Ppk	300	W
Peak Pulse Current (8/20 μ s)	IPP	20	A
ESD per IEC 61000-4-2 (Air)	VESD	\pm 30	kV
ESD per IEC 61000-4-2 (Contact)		\pm 30	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

PESD5V0S1BA

Electrical Characteristics (TA=25°C unless otherwise specified)

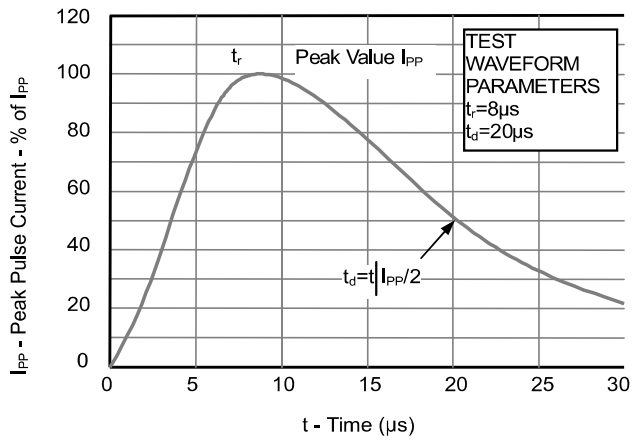
Symbol	Parameter
V _{RWM}	Nominal Reverse Working Voltage
I _R	Reverse Leakage Current @ V _{RWM}
V _{BR}	Reverse Breakdown Voltage @ I _T
I _T	Test Current for Reverse Breakdown
V _C	Clamping Voltage @ I _{PP}
I _{PP}	Maximum Peak Pulse Current
C _{ESD}	Parasitic Capacitance
V _R	Reverse Voltage
f	Small Signal Frequency



Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V _{RWM}				5	V
Breakdown Voltage	V _{BR}	I _T = 1mA(Pin1-Pin2)	6.0	7.0	8.0	V
Reverse Leakage Current	I _R	V _{RWM} = 5.0V(Pin2-Pin1)			0.1	μA
Clamping Voltage	V _C	I _{PP} = 10A (8 x 20μs pulse) (Pin1-Pin2)		7.0		V
Clamping Voltage	V _C	I _{PP} = 20A (8 x 20μs pulse) (Pin1-Pin2)		9.0		V
Junction Capacitance	C _J	V _R = 0V, f = 1MHz (Pin1-Pin2)		35		pF

RATING AND CHARACTERISTIC CURVES (PESD5V0S1BA)

Fig1. 8/20 μ s Pulse Waveform



ig2. ESD Pulse Waveform (according to IEC 61000-4-2)

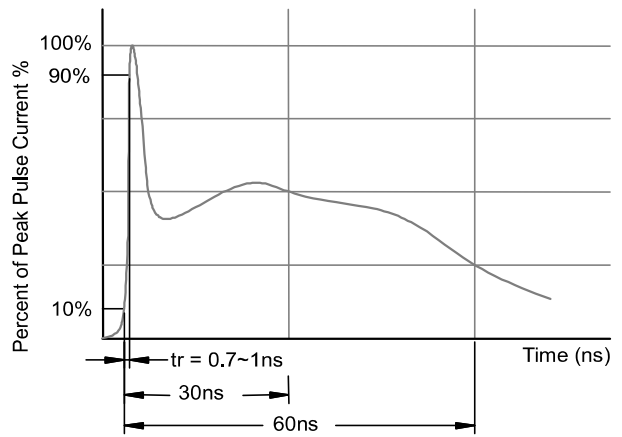
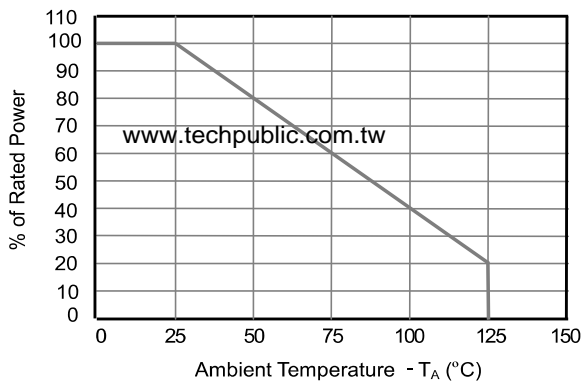


Fig3. Power Derating Curve



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[P6KE13CA](#) [P6KE43CA](#) [P6KE6.8CA](#) [P6KE8.2](#) [P6SMBJ20CA](#) [JANTX1N6072A](#) [SR2835ESKG](#) [SA90CA](#)