DESCRIPTION

PESD5V0S1BL is low capacitance ElectroStatic Discharge (ESD) protection diodes in ultra small SMD plastic packages designed to protect one signal line from the damage caused by ESD and other transients.

The PESD5V0S1BL is available in SOD-882 package

FEATURES

- Small Body Outline Dimensions
- Low Body Height
- Peak Power up to 150Watts @ 8 x 20μs Pulse
- Low Leakage current
- Response Time is Typically < 1ns
- ESD Rating of Class 3 (> 16kV) per Human Body Model
- Available in SOD-882 package

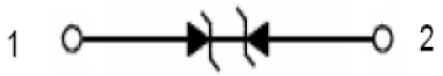
ORDERING INFORMATION

Package Type	Part Number
SOD-882	PESD5V0S1BL
Note	SPQ: 10,000pcs/Reel
AiT provides all RoHS Compliant Products	

APPLICATIONS

- Cellular Handsets and Accessories
- Portable Electronics
- Computers and Peripherals
- Communication Systems
- Audio and Video Equipment
- Digital Cameras
- Power Supplies

PIN DESCRIPTION



ABSOLUTE MAXIMUM RATINGS

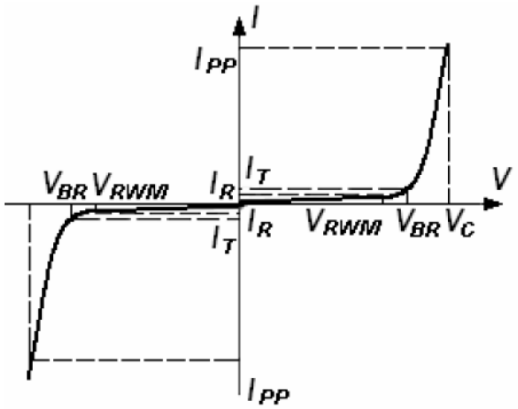
Tamb=25°C

P_{PP}, Peak Pulse Power (tp = 8/20μs)		150W
T_L, Maximum Lead Solder Temperature for Soldering During 10s		260ºC
T_{STG}, Storage Temperature Range		-55ºC ~155ºC
T_{op}, Operating Temperature Range		-40ºC ~125ºC
T_J, Maximum Junction Temperature		150ºC
IEC 61000−4−2 (ESD)	Air Discharge	±15kV
	Contact Discharge	±8kV
IEC 61000−4−4 (EFT)		40A
ESD Voltage	Per Human Body Model	16kV

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

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



ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. V_F = 0.9V at I_F = 10mA

Part Number	V_{RWM} (V)	I_{R1} (μA) @ V_{RWM}	I_{R2} (μA) @ V_R=3.5V	V_{BR}(V) @ I_T NOTE1	I_T	V_C (V) @ I_{PP} =5A NOTE2	V_C (V) MAX@ I_{PP} NOTE2	I_{PP} (A) NOTE2	P_{PK} (W) NOTE2	C (pF)
	Max	Max	Max	Min	mA	Typ	Max	Max	Max	Typ
PESD5V0S1BL	5.0	0.5	0.3	5.6	1.0	11.6	18.6	9.4	174	15

NOTE1: V_{BR} is measured with a pulse test current IT at an ambient temperature of 25℃ .

NOTE2: Surge current waveform per Figure 1.

TYPICAL CHARACTERISTICS

Figure1. Pulse Waveform

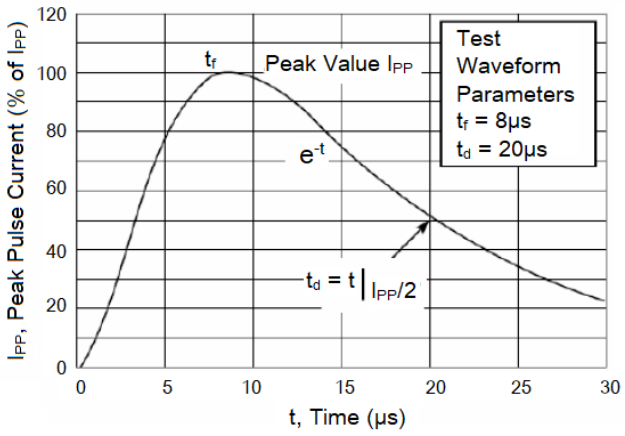
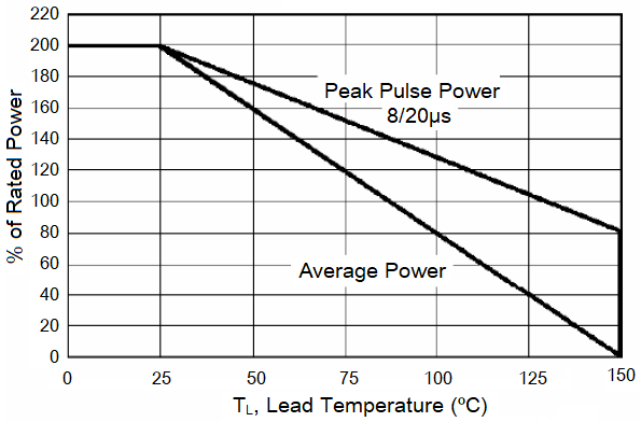
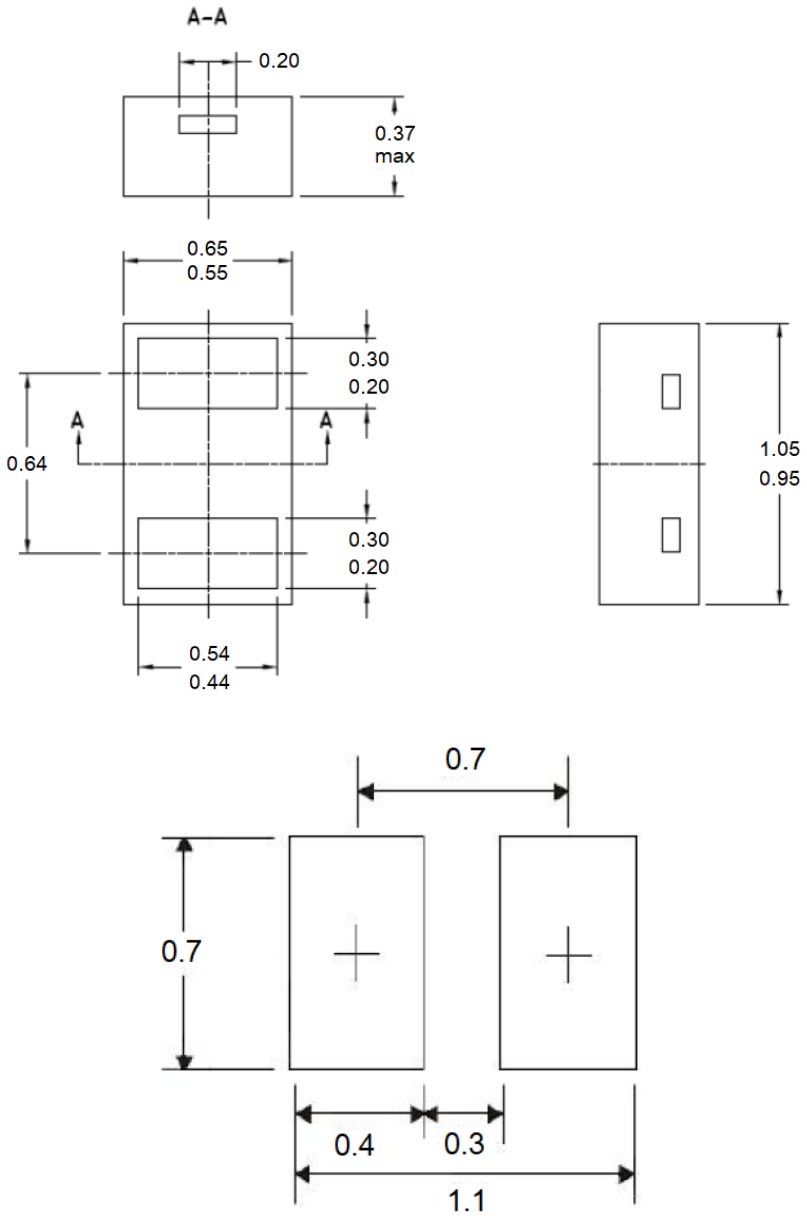


Figure 2. Power Derating Curve



PACKAGE INFORMATION

Dimension in SOD-882 Package (Unit: mm)



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