



DESCRIPTION

The is designed to protect voltage sensitive components from ESD and transient voltage events. Excellent clamping capability, low leakage, and fast response time, make these parts ideal for ESD protection on designs where board space is at a premium. Because of its small size , it is suited for use in cellular phones, MP3 players, digital cameras and many other portable applications where board space is at a premium.

The ESD5V0S1 is available in SOD-882 package

ORDERING INFORMATION

Package Type	Part Number
SOD-882	ESD5V0S1
Note	10,000pcs/Reel
AiT provides all RoHS Compliant Products	

FEATURES

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

APPLICATIONS

- Cellular phones
- Portable devices
- Digital cameras
- Power supplies

PIN DESCRIPTION





ABSOLUTE MAXIMUM RATINGS

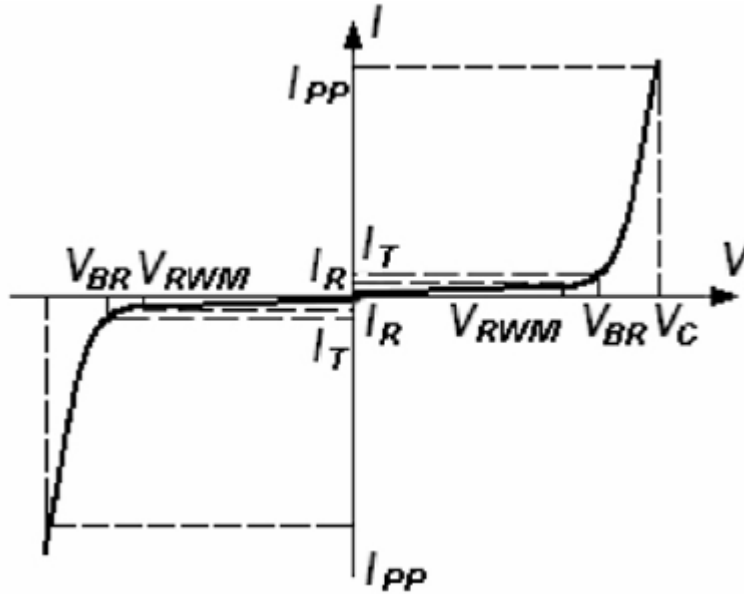
T_{AMB}=25°C

P _{PP} , Peak Pulse Power (t _P = 8/20μs)		150W
T _L , Maximum lead temperature for soldering during 10s		260°C
T _{STG} , Storage Temperature Range		-55°C~+155°C
T _{OP} , Operating Temperature Range		-40°C~+125°C
T _J , Maximum Junction Temperature		150°C
IEC61000-4-2 (ESD)	air discharge	±15KV
	contact discharge	±8KV
IEC61000-4-4 (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 PARAMETER



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)	$I_{R1}(\mu A)$ @ V_{RWM}	$I_{R2}(\mu A)$ @ $V_R=3.5V$	$V_{BR}(V)$ @ I_T NOTE1	I_T	$V_C(V)$ @ $I_{PP}=5A^*$	$V_C(V)$ @ Max I_{PP}^*	I_{PP} (A) *	P_{PK} (W) *	C (pF)
	Max	Max	Max	MIN	mA	Typ	Max	Max	Max	Typ
ESD5V0S1	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 I_T at an ambient temperature of 25°C .

NOTE2: * Surge current waveform per Figure 1.

TYPICAL CHARACTERISTICS

Figure 1. Pulse Waveform

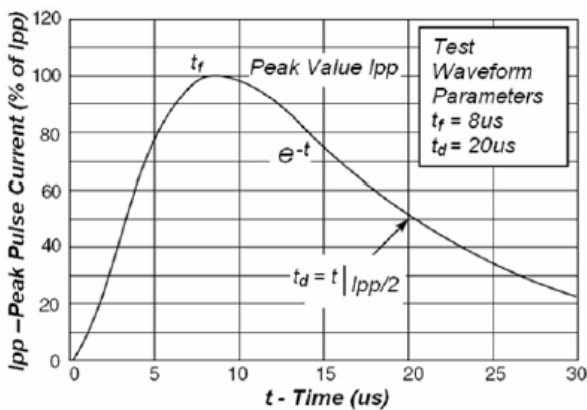
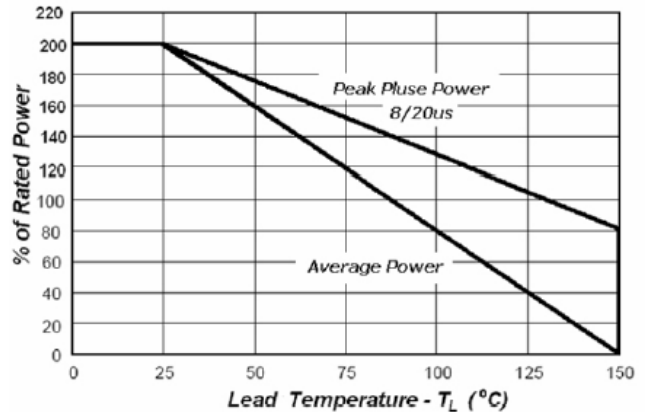


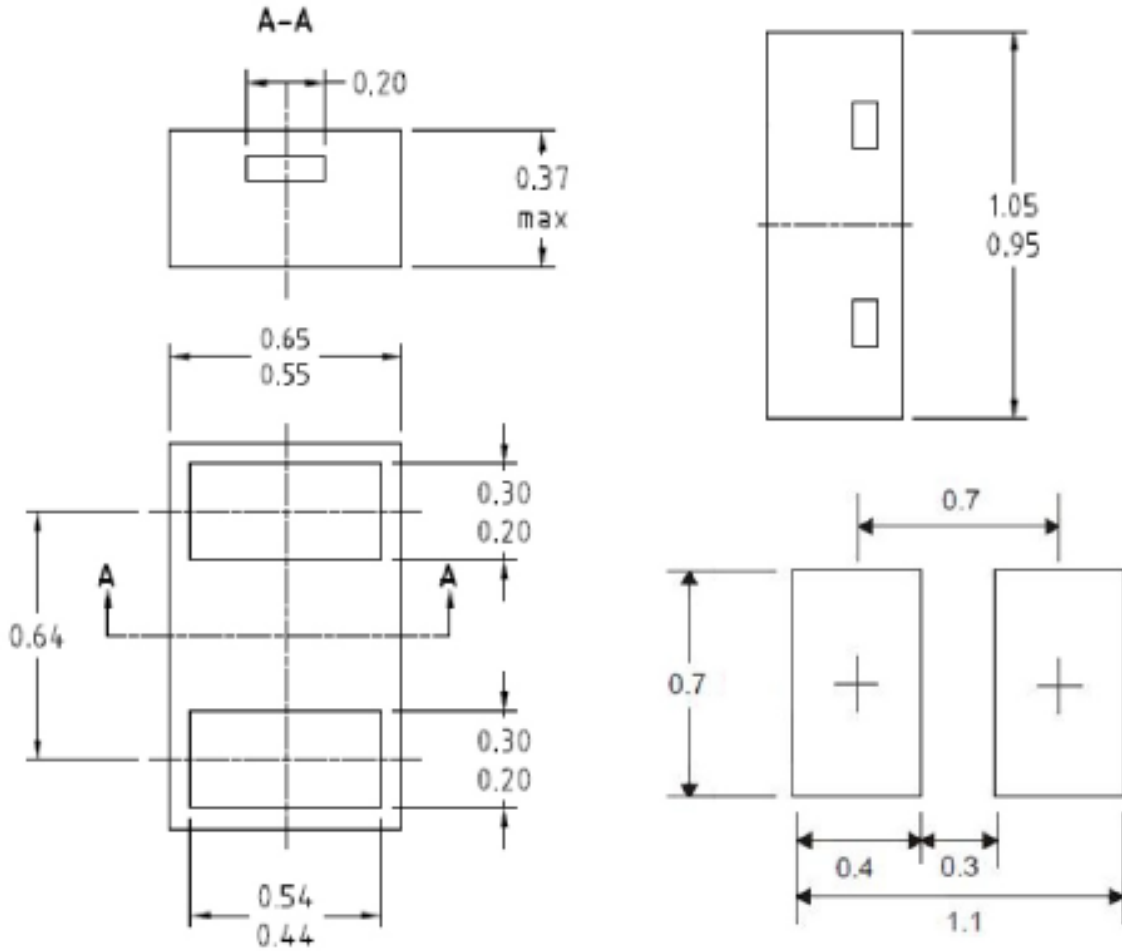
Figure 2. Power Derating Curve





PACKAGE INFORMATION

Dimension in SOD-882 (Unit: mm)





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