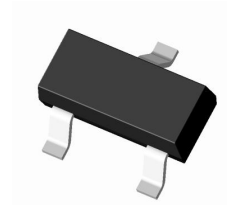


ESD Protection Diode

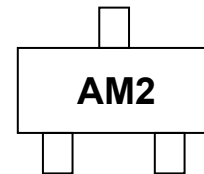
Features

- SOT-23 package
- Low leakage current
- Excellent clamping voltage
- Fast response time, typically < 1 ns
- 300 Watts peak pulse power (tP = 8/20µs)
- IEC 61000-4-2 ±30kV (Air) ESD protection
- IEC 61000-4-4 40A (5/50ns) EFT protection
- IEC 61000-4-2 ±30kV (Contact) ESD protection
- IEC 61000-4-5 12A (8/20us) SURGE protection
- Protects one bidirectional or two unidirectional lines
- RoHS compliant

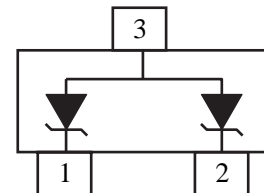


Marking: AM2

SOT-23



Schematic Diagram



Applications

- Set-Top Box
- Portable Electronics
- Communication Systems
- Control & Monitoring Systems
- Cellular Handsets and Accessories
- Servers, Notebooks, and Desktop PCs

Absolute Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak Pulse Power (TP=8/20µS)	P _{PP}	300	W
Operating temperature	T _J	-55 to +150	°C
Storage temperature	T _{STG}	-55 to +150	°C

Electrical Specifications ($T_A=25^{\circ}\text{C}$ unless otherwise noted)						
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse stand-off Voltage	V_{RWM}				12	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1\text{mA}$	13.3			V
Reverse Leakage Current	I_R	$V_R=12\text{V}$			1	μA
Clamping Voltage	V_C	$I_{PP}=1\text{A}, T_P=8/20\mu\text{S}$			16	V
	V_C	$I_{PP}=12\text{A}, T_P=8/20\mu\text{S}$			25	V
Junction Capacitance	C_J	$V_R=0\text{V}, f=1\text{MHz}$		50		pF

Ratings and Characteristics Curves

($T_A = 25^{\circ}\text{C}$ unless otherwise noted)

Fig.1 Peak Pulse Power vs Pulse Time

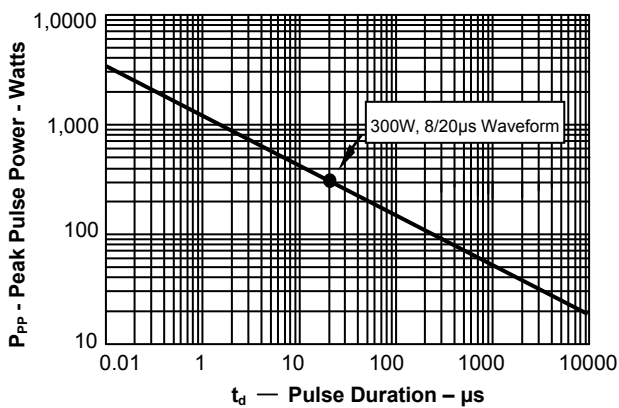


Fig.2 Pulse WaveForm-8/20μs

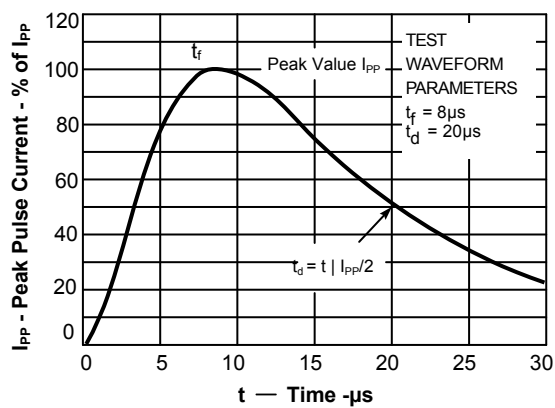


Fig.3 Power Derating Curve

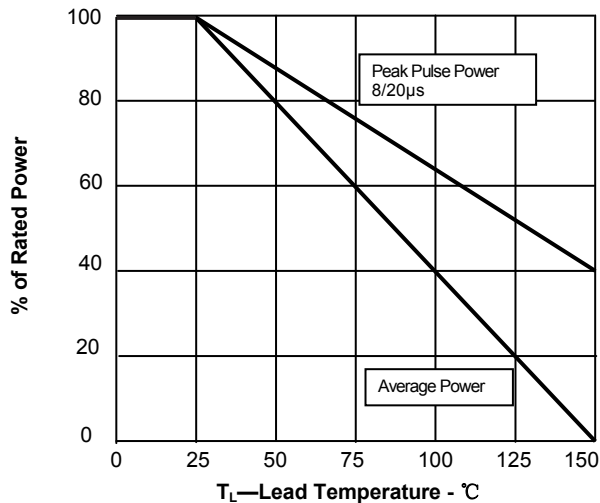
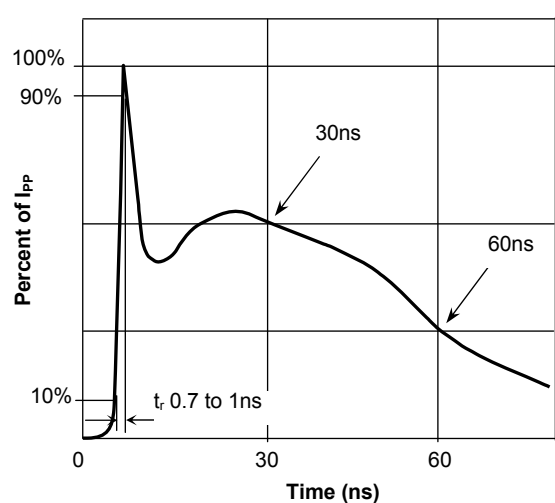
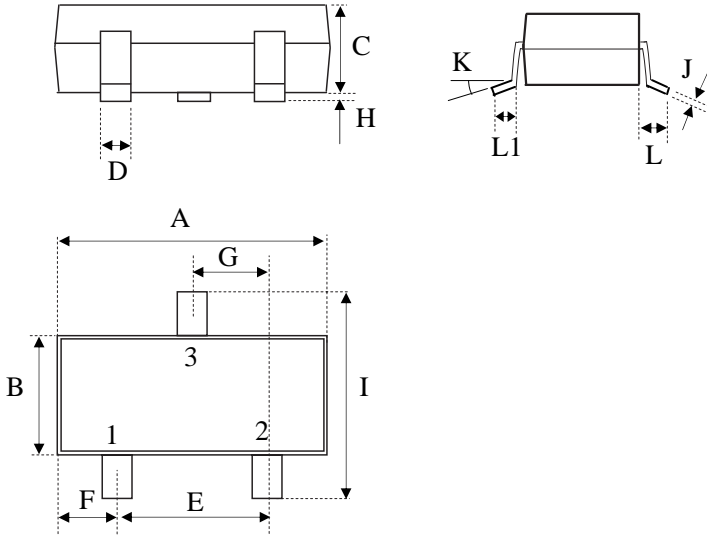


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



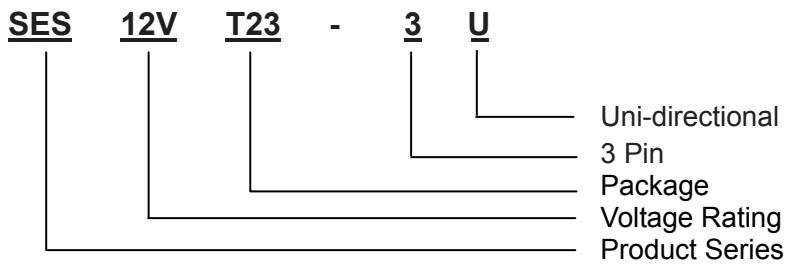
Package Outline Dimensions

in inches (millimeters)



Dim	millimeters	
	min	max
A	2.80	3.04
B	1.20	1.40
C	0.89	1.11
D	0.37	0.50
E	1.78	2.04
F	0.45	0.60
G	0.89	1.02
H	0.013	0.100
I	2.10	2.50
J	0.085	0.177
K	0°	10°
L	0.45	0.60
L1	0.30	0.60

Part Number System



Revision History

Document Version	Date of release	Description of changes
Rev.A	2016.11.22	First issue

Disclaimers

These materials are intended as a reference to assist our customers in the selection of the Suzhou Good-Ark product best suited to the customer's application; they do not convey any license under any intellectual property rights, or any other rights, belonging to Suzhou Good-Ark Electronics Co., Ltd. or a third party.

Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, or infringement of any third-party's rights, originating in the use of any product data, diagrams, charts, programs, algorithms, or circuit application examples contained in these materials.

All information contained in these materials, including product data, diagrams, charts, programs and algorithms represents information on products at the time of publication of these materials, and are subject to change by Suzhou Good-Ark Electronics Co., Ltd. without notice due to product improvements or other reasons. It is therefore recommended that customers contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized Suzhou Good-Ark Electronics Co., Ltd. for the latest product information before purchasing a product listed herein. The information described here may contain technical inaccuracies or typographical errors. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability, or other loss rising from these inaccuracies or errors. Please also pay attention to information published by Suzhou Good-Ark Electronics Co., Ltd. by various means, including our website home page.

(<http://www.goodark.com>)

When using any or all of the information contained in these materials, including product data, diagrams, charts, programs, and algorithms, Please be sure to evaluate all information as a total system before making a final decision on the applicability of the information and products. Suzhou Good-Ark Electronics Co., Ltd. assumes no responsibility for any damage, liability or other loss resulting from the information contained herein.

The prior written approval of Suzhou Good-Ark Electronics Co., Ltd. is necessary to reprint or reproduce in whole or in part these materials.

Please contact Suzhou Good-Ark Electronics Co., Ltd. or an authorized distributor for further details on these materials or the products contained herein.