

ESD Protection Diode

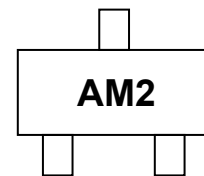
Features

- 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

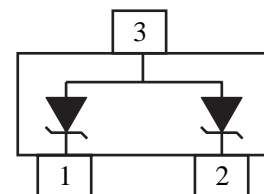


Marking: AM2

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
Reversestand-off Voltage	V_{RWM}				12	V
ReverseBreakdown Voltage	V_{BR}	$I_T=1\text{mA}$	13.3			V
ReverseLeakage 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

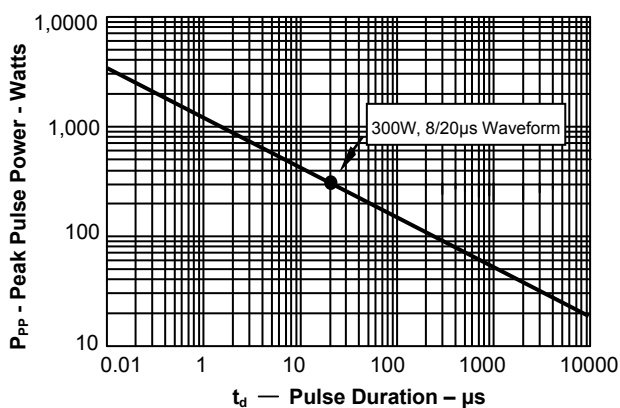


Fig.2 Pulse WaveForm-8/20 μs

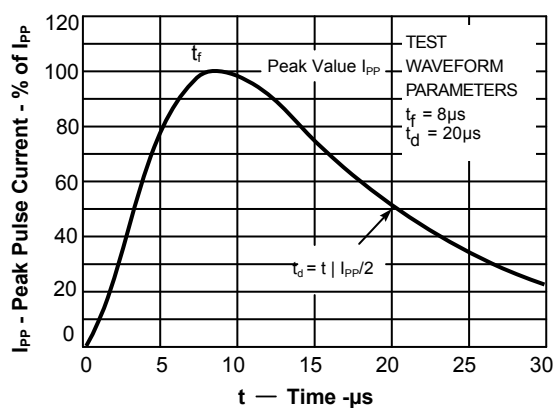


Fig.3 Power Derating Curve

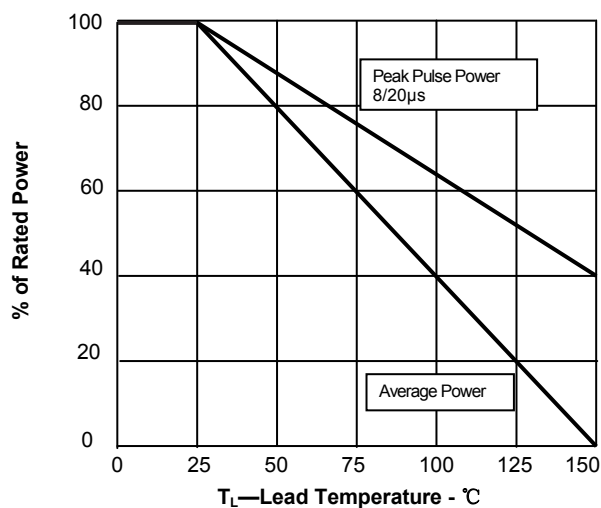
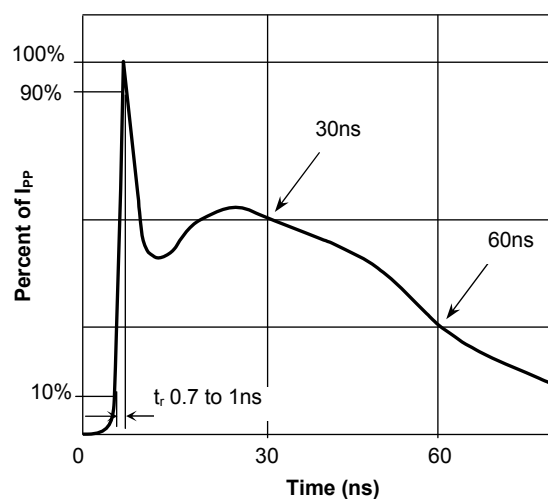
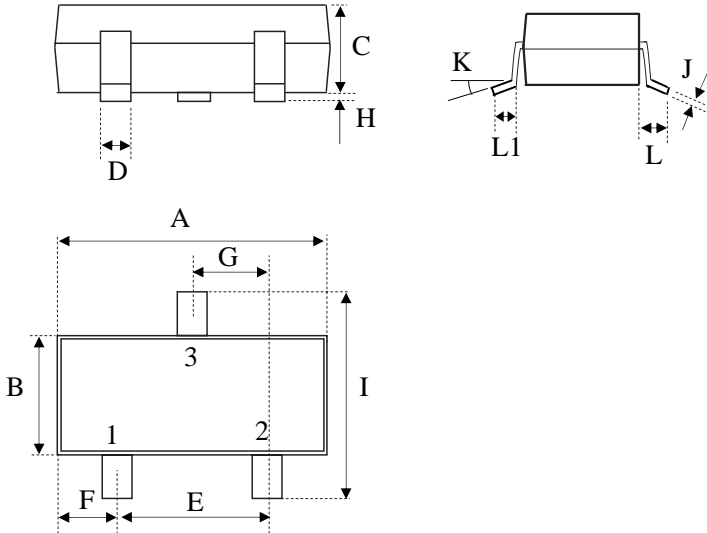


Fig.4 Pulse Waveform-ESD(IEC61000-4-2)



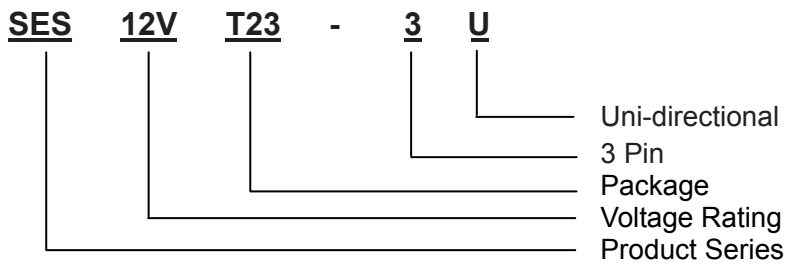
Package Outline Dimensions

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

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