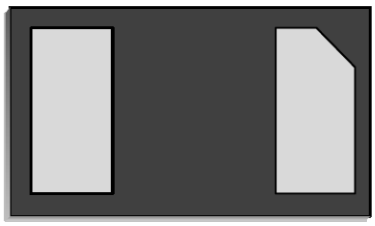
Features

- Small Body Outline Dimensions
- Protects one I/O line
- Working Voltage: 12V
- Low Leakage Current
- Response Time is Typically < 1 ns
- IEC 61000-4-2 (ESD) ±32kV (air), ±30kV (contact)
  IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5 (Lighting) 5A (8/20μs)

Applications

- Cellular Handsets & Accessories
- Personal Digital Assistants (PDAs)
- Notebooks & Handhelds
- Portable Instrumentation
- Digital Cameras
- MP3 Player

SES12VD1006-2B



DFN 1006-2



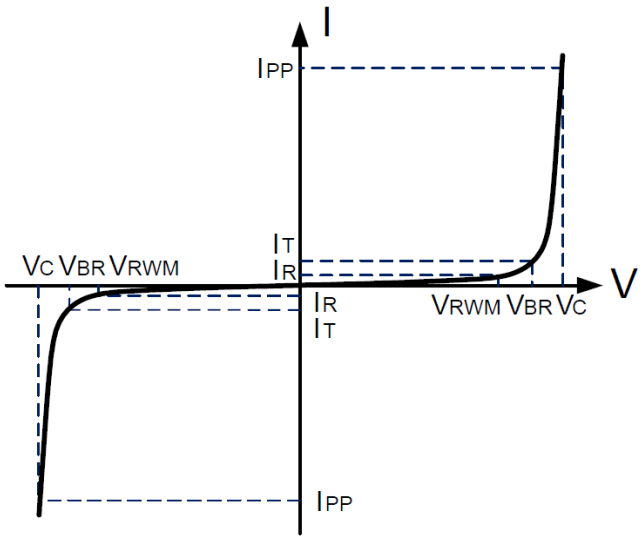
Schematic Diagram

Absolute Maximum Ratings (T_a=25℃ unless otherwise noted)

Parameter	Symbol	Value	Units
Peak Pulse Power (t_p = 8/20μs)	P_{PP}	150	W
Peak Pulse Current (t_p = 8/20μs)	I_{FP}	5	A
Junction Temperature	T_J	-55 ~ +125	℃
Storage Temperature	T_{STG}	-55 ~ +150	

Electrical Parameter (T=25℃)

Parameter	Symbol
Clamping Voltage @ I_{PP}	V_C
Peak Pulse Current	I_{PP}
Breakdown Voltage @ I_T	V_{BR}
Test Current	I_T
Reverse Leakage Current @ V_{RWM}	I_R
Reverse Standoff Voltage	V_{RWM}
Forward Current	I_F
Forward Voltage @I_F	V_F



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Electrical Characteristics(Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test Condition	Value			Unit
			Min	Typ.	Max	
Reverse standoff voltage	V_{RWM}				12.0	V
Breakdown voltage	V_{BR}	I_T=1mA	13.3			V
Reverse leakage current	I_R	V_{RWM}=12V			200	nA
Peak Pulse Current	I_{PP}	t_p =8/20μs			5	A
Clamping voltage	V_C	I_{PP}=1A, t_p =8/20μs			20	V
Clamping voltage	V_C	I_{PP}=5A, t_p =8/20μs			26	V
Junction capacitance	C_J	V_R=0V,f=1MHz		9	15	pF

Note:

1. ESD Pulse Waveform according to IEC 61000-4-2 , see Table1 and Figure1
2. ESD tests Setup see Figure2.
3. The clamping Voltage data is taken with a 100x attenuator.

Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Figure 1: Peak Pulse Power vs. Pulse Time

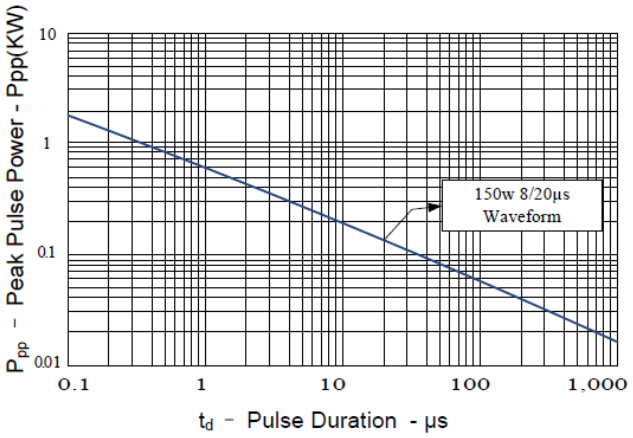


Figure 2: Power Derating Curve

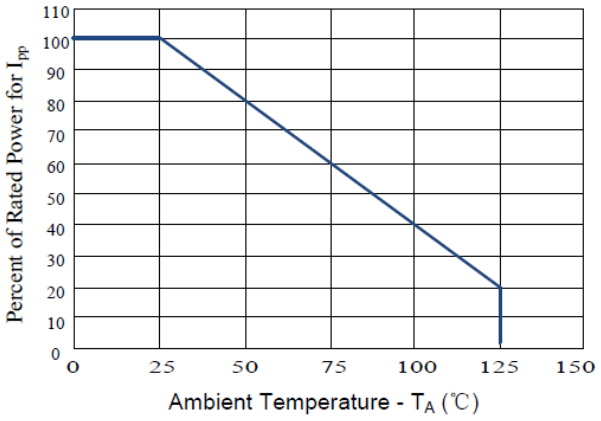


Figure 3: Clamping Voltage vs. Peak Pulse Current

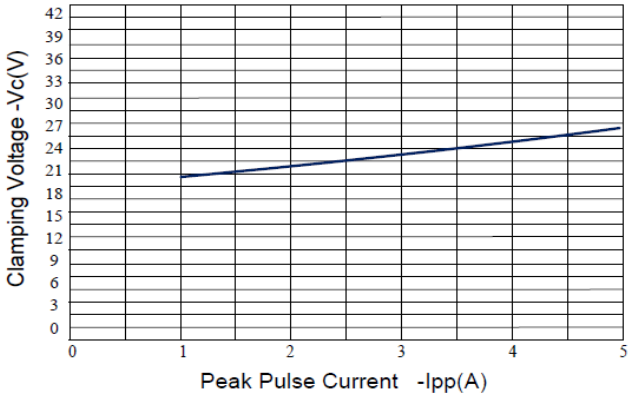
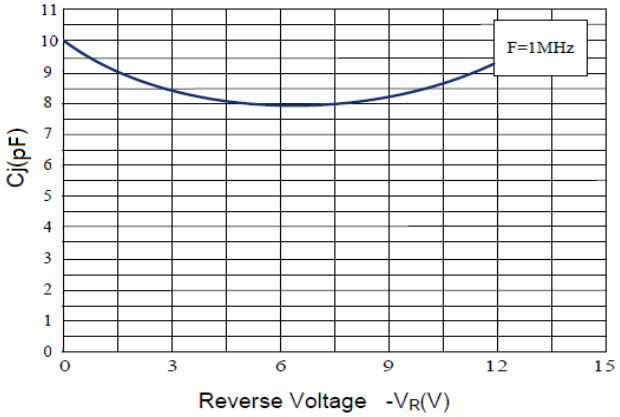


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage



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Figure 5: 8/20μs Pulse Waveform

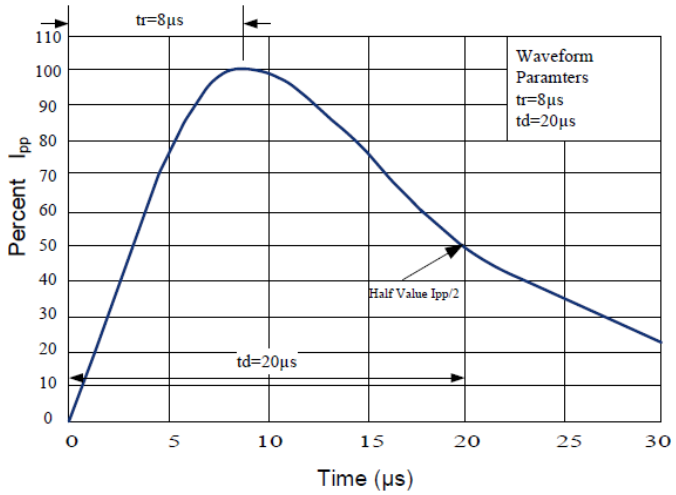
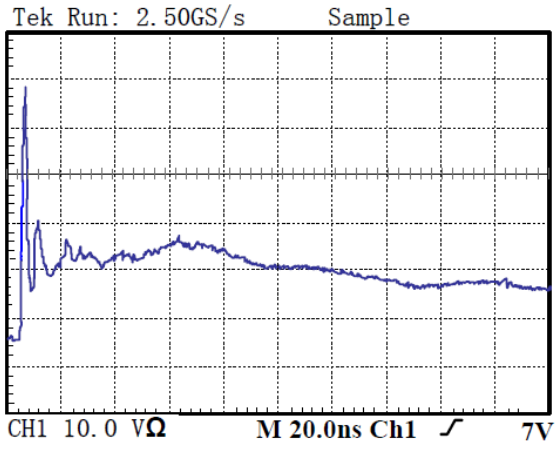
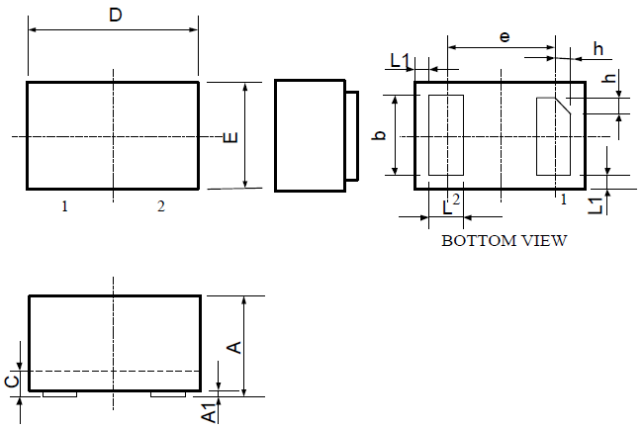


Figure 6: ESD Clamping(8kV Contact per IEC 61000-4-2)

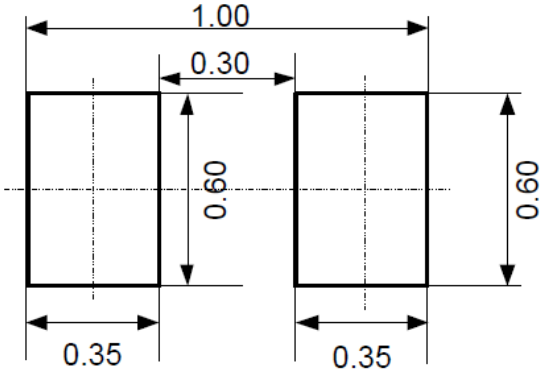


Package Outline Dimensions



SYMBOL	Milimeter		
	Min.	Typ.	Max.
A	0.45	0.50	0.55
A1	0	0.02	0.05
b	0.45	0.50	0.55
C	0.12	0.15	0.18
D	0.95	1.00	1.05
e	0.65 Bsc.		
E	0.55	0.60	0.65
L	0.20	0.25	0.30
L1	0.05 Ref.		
h	0.04	0.12	0.17

Land Pattern



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Marking

AF

Revision history

Date	Revision	Description of changes
23-NOV-2016	A0	First issue

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