

FEATURES

- Peak Power Dissipation-80W(8x20 usWaveform)
- Low capacitance(<0.4pF) for high-speed interfaces
- Stand-offVoltage: 5.0V
- Protects I/O Port
- No insertion loss to 6.0GHz
- Low ClampingVoltage
- Low Capacitance
- Low Leakage
- Solid-state Punch-ThroughTVS Process technology

APPLICATIONS

- High Definition Multi-Media Interface(HDMI 1.3/1.4/2.0)
- High Speed Line: USB1.0/2.0/3.0/3.1,VGA, DVI, SDI
- Notebooks, Desktops, Servers
- Serial and Parallel Ports
- ProjectionTV
- Portable instrumentation
- Peripherals
- Cellular handsets and accessories

MECHANICAL DATA

- Case : Molded plastic,DFN0603-2L
- Polarity : Shown follows
- Terminals :Plated terminals, solderable per MIL-STD-750,Method 2026

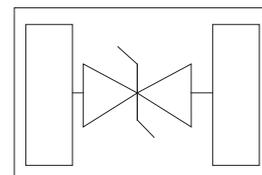
IEC COMPATIBILITY

- IEC61000-4-2(ESD)±15kV(air), ±8kV(contact)

DFN0603-2L PACKAGE



SCHEMATIC & PIN CONFIGURATION



DESCRIPTION

The SESD05DLCBW is designed with Willas processTVS technology to protect voltage sensitive components fromESD. Excellent clamping capability, low leakage,and fast response time provide best in class protection on designs that areexposed to ESD. Because of its small size, it is suited for use in cellular phones, MP3 players, digital cameras and manyother portable applications where board space comes at a premium.Also because of its low capacitance, it is suited for usein high frequency designs such as USB 2.0 high speed, USB 3.0 super speed, USB 3.1 super speed,VGA, DVI, HDMI,eSATAand other high speed line applications.It has been specifically designed to protect sensitive components which are connected to data and transmission linesfrom overvoltage caused by ESD(electrostatic discharge), and EFT(electrical fast transients).

Maximum ratings(Temp=25°C Unless Otherwise Specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (tp=8/20µs waveform)	P _{PPP}	45	Watts
ESD Rating per IEC61000-4-2:	Contact	8	KV
	Air	20	
Lead Soldering Temperature	T _L	260 (10 sec.)	°C
Operating Temperature Range	T _J	-55 ~ 150	°C
Storage Temperature Range	T _{STG}	-55 ~ 150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	T _L	260	°C

■ Non-repetitive current pulse, per Figure 1.

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values(not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

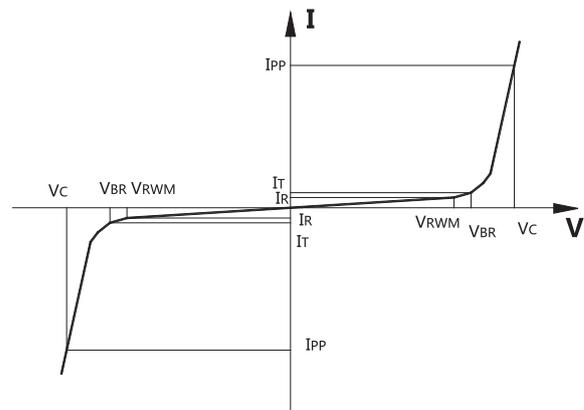
*Other voltages may be available upon request.

Electrical characteristics(Temp=25°C Unless Otherwise Specified)

Device	V _{RWM}	I _R @ V _{RWM}		V _{BR} @ 1 mA	R _{dyn}	V _C	Capacitance	
		(µA)		(Volts)	Ω	@ 2 A	@ V _R = 0 V, 1 MHz (pF)	
	(V)	Typ.	Max	Min	Typ.	(V)	Typ	Max
SESD05DLCBW	5.0	0.01	0.1	6.0	1.4	15.0	0.12	0.2

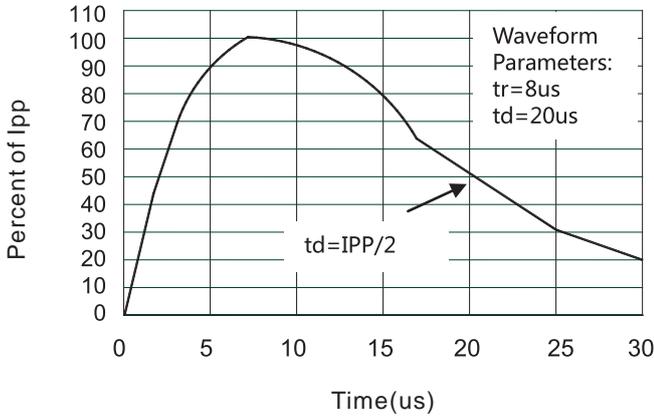
Junction capacitance is measured in VR=0V, F=1MHz

Symbol	Parameter
V _{RWM}	Working Peak Reverse Voltage
V _{BR}	Breakdown Voltage @ I _T
V _C	Clamping Voltage @ I _{PP}
I _T	Test Current
I _{RM}	Leakage current at V _{RWM}
I _{PP}	Peak pulse current
C _O	Off-state Capacitance
C _J	Junction Capacitance

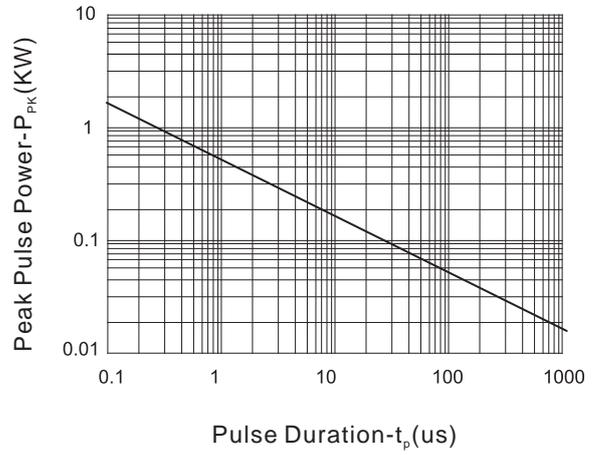


Typical electrical characterist applications

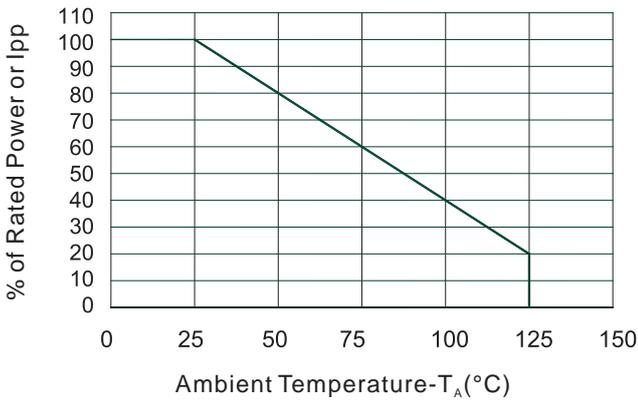
Pulse Waveform



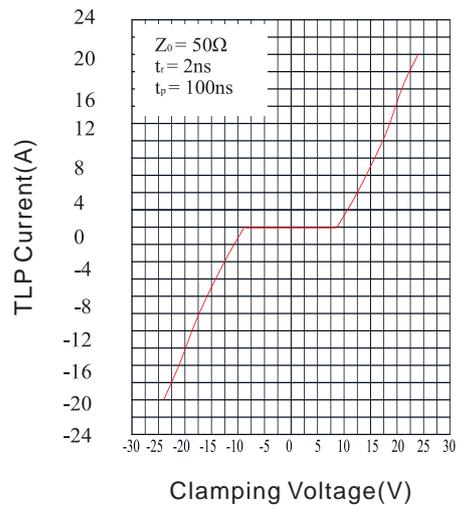
Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve



TLP Measurement

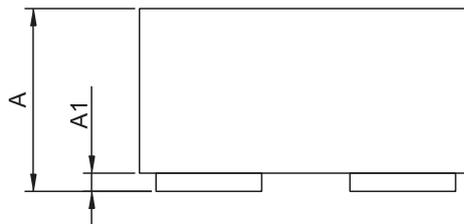
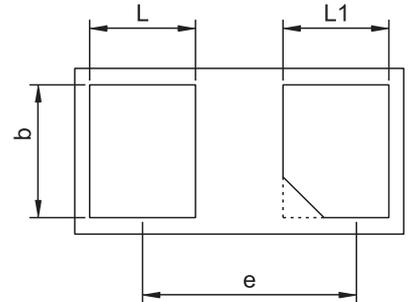
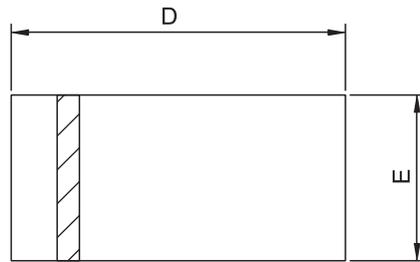


Package Information

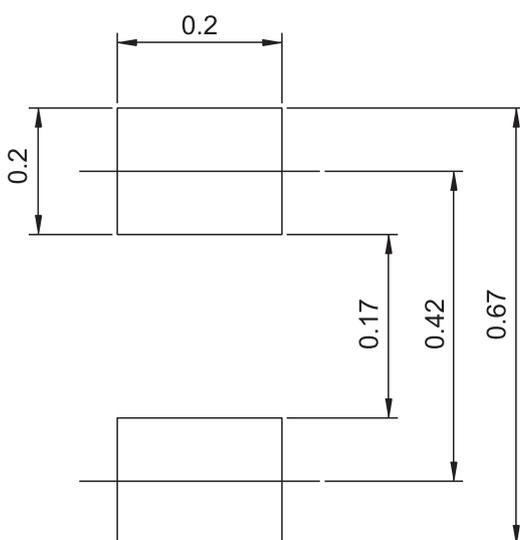
Mechanical Data

Case: DFN0603-2L

DIM	Millimeters	
	Min	Max
A	0.230	0.330
A1	0.000	0.050
D	0.550	0.650
E	0.250	0.350
b	0.215	0.295
e	0.535BSC	
L	0.115	0.225
L1	0.115	0.225



Recommended Pad outline



Ordering Information:

Device PN	Packing
SESD05DLCBW -T ⁽¹⁾ H ⁽²⁾ -WS	Tape&Reel: 15 Kpcs/Reel

Note: (1) Packing code, Tape & Reel Packing

(2) Halogen free product for packing code suffix "H"

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