SESDFBP05C
Single Line ESD Protection Diode

General Description

The SESDFBP05C ESD protection diode is designed to replace multilayer varistors (MLVs) in portable applications such as cell phones, notebook computers, and PDA's. They feature large cross-sectional area junctions for conducting high transient currents, offer desirable electrical characteristics for board level protection, such as fast response time, lower operating voltage, lower clamping voltage and no device degradation when compared to MLVs.

Applications

- Cellular phones handsets and Accessories
- PDA's
- MP3 players
- Digital cameras
- Portable applications
- mobile telephone

Features

- Equivalent to 0402 package
- 120W peak pulse power
- Small package for use in portable electionics
- Standoff voltage : 5V
- Low leakage current
- These are Pb−Free Devices

Complies with the following standards

IEC61000-4-2

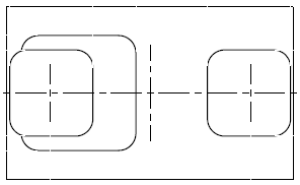
Level 4 15 kV (air discharge)

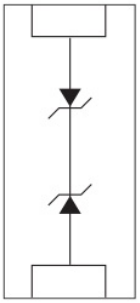
8 kV(contact discharge)

MIL STD 883E - Method 3015-7 Class 3

25 kV HBM (Human Body Model)

Functional diagram





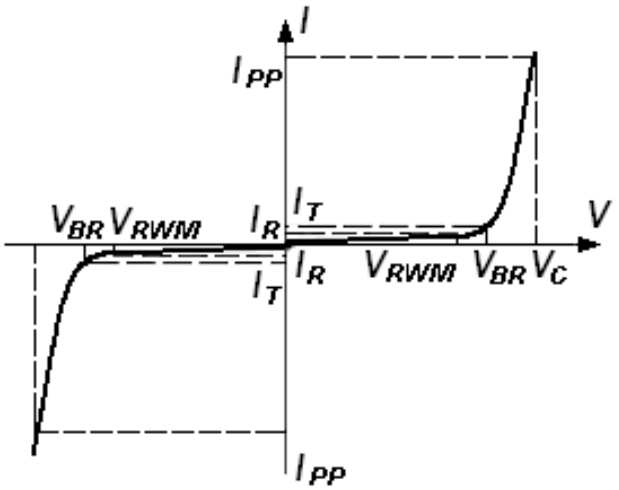
WBFBP-02L

Maximum Ratings

Symbol	Parameter	Value	Unit
	IEC 61000-4-2 (ESD) Contact	8	kV
P_{PK}	Peak Pulse Power	120	W
I_{PP}	Peak Pulse Power	12	A
T_J, T_{STG}	Junction and Storage Temperature Range	-55 to 150	℃
T_L	Lead Solder Temperature – Maximum (10 Second Duration)	260	℃

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 (T_A=25℃ unless otherwise noted, V_F=0.9V Max. @ I_F=10mA for all types)

Part Numbers	V_{BR}			I_T	V_{RWM}	I_R	C
	Min.	Typ.	Max.				Typ. 0v bias
	V	V	V	mA	V	μA	pF
SESDFBP05C	6.1	6.6	7.2	1	5.0	1	10

Typical Characteristics

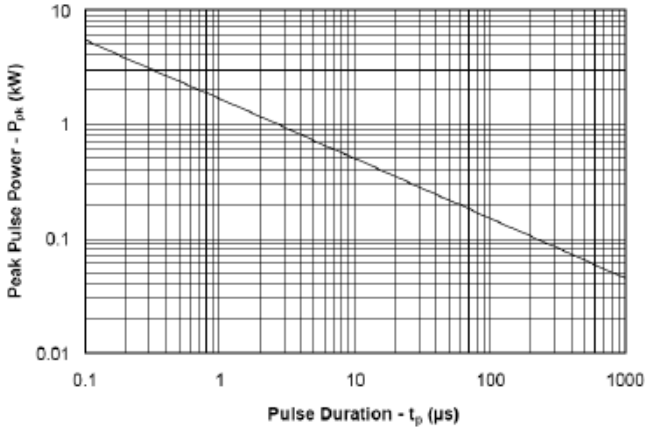


Figure 1. Non-Repetitive Peak Pulse Power versus Pulse Time

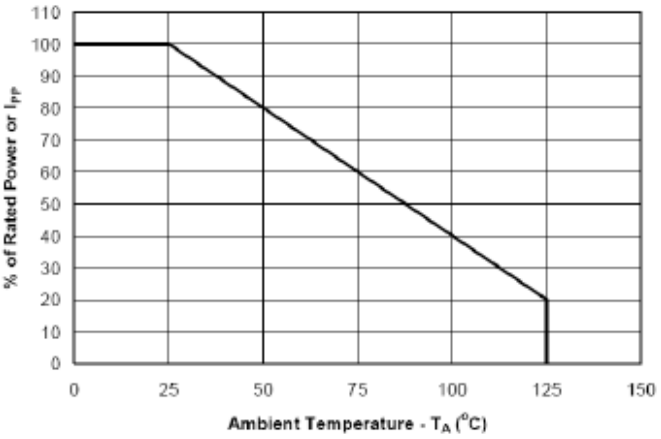


Fig 2. Power Derating Curve

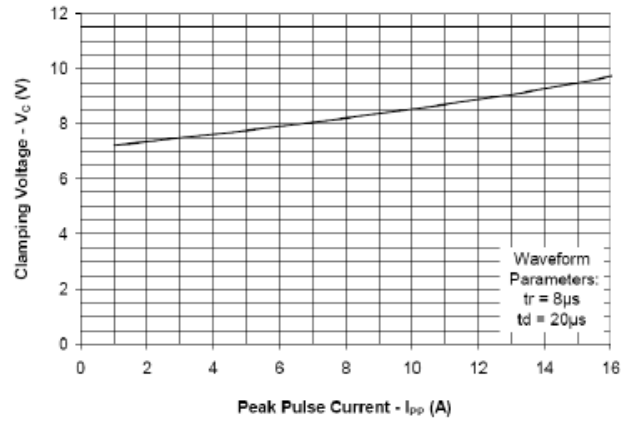


Figure 3. Clamping Voltage vs. Peak Pulse Current

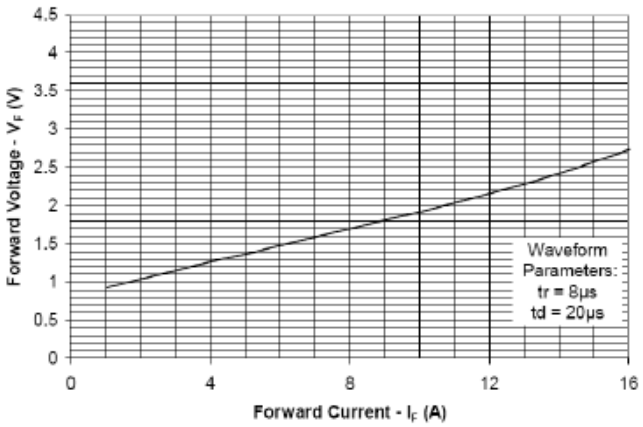


Figure 4. Forward Voltage vs. Forward Current

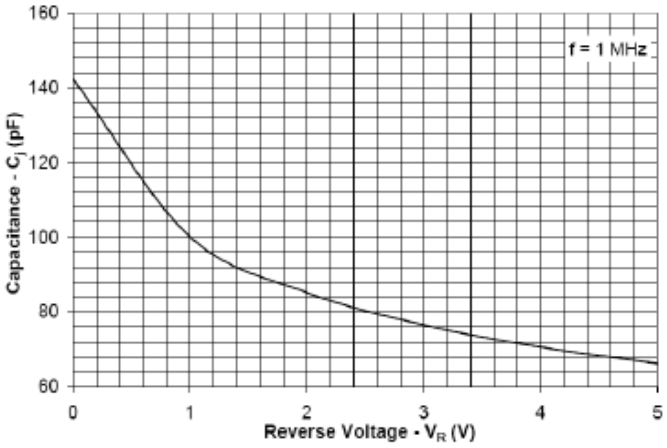


Figure 5.Junction Capacitance vs. Reverse Voltage

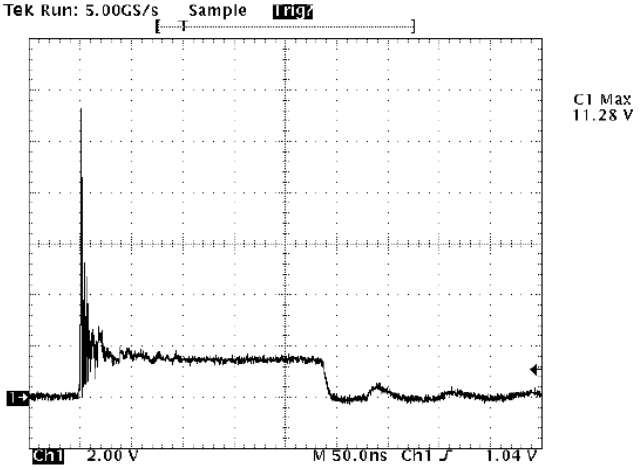


Fig 6. ESD Clamping (8kV Contact per IEC 61000-4-2)

WBFBP-02L Mechanical Data

