

RoHS Compliant Product

A suffix of "-C" specifies halogen and lead-free

DESCRIPTION

Designed to protect voltage sensitive electronic components from ESD and other transients. Excellent clamping capability, low leakage, low capacitance, and fast response time provide best in class protection on designs that are exposed to ESD.

The combination of small size, low capacitance, and high level of ESD protection makes them a flexible solution for applications such as HDMI, Display Port TM, and MDDI interfaces. It is designed to replace multiplayer varistors (MLV) in consumer equipments applications such as mobile phone, notebook, PAD, STB, LCD TV etc.

FEATURES

- Uni-Directional ESD Protection of One Lines
- Low Capacitance
- Low Reverse Clamping Voltage
- JESD22-A114-B ESD Rating of Class 3B per Human Body Model
- IEC 61000-4-2 Level 4 ESD Protection

APPLICATIONS

- Computers and Peripherals
- High Speed Data Lines
- Audio and Video Equipment
- USB Interfaces

MARKING



Front side

PACKAGE INFORMATION

Package	MPQ	Leader Size
WBFBP-02C-A	10K	7 inch

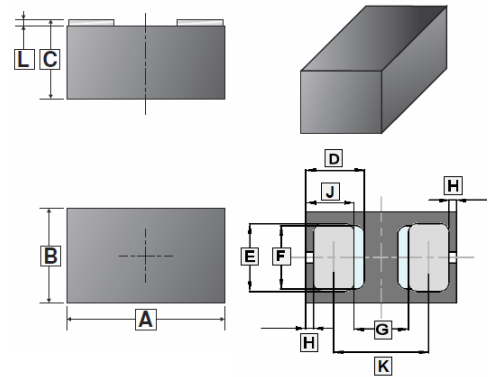
ORDER INFORMATION

Part Number	Type
SESDAL05-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter		Symbol	Limit	Unit
IEC 61000-4-2 ESD Voltage	Air Model	V _{ESD} ¹	±15	kV
	Contact Model		±15	
JESD22-A114-B ESD Voltage	Per Human Body Model		±12	
ESD Voltage	Machine Model		±0.4	
Peak Pulse Power ²		P _{PP}	75	W
Peak Pulse Current ²		I _{PP}	5	A
Lead Solder Temperature–Maximum(10Sec. Duration)		T _L	260	°C
Operating and Storage Temperature Range		T _J , T _{STG}	150, -55~150	°C

WBFBP-02C-A



	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	0.95	1.05	G	0.36	REF.
B	0.55	0.65	H	0.05	REF.
C	0.45	0.55	J	0.27	0.37
D	0.39 REF.		K	0.58	0.68
E	0.4	0.5	L	0.01	0.09
F	0.42 REF.				



ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Reverse Stand-off Voltage	V_{RWM}	-	-	5	V	
Reverse Leakage Current	I_R	-	-	1	μA	$V_{RWM}=5\text{V}$
Breakdown Voltage	V_{BR}	5.4	-	9.4	V	$I_T=1\text{mA}$
Clamping Voltage ²	V_C	-	-	15	V	$I_{PP}=5\text{A}$
Junction Capacitance	C_J	-	0.5	0.9	pF	$V_R=0, f=1\text{MHz}$

Notes:

1. Device stressed with ten non-repetitive ESD pulses.
2. Non-repetitive current pulse 8/20 μs exponential decay waveform according to IEC61000-4-5.

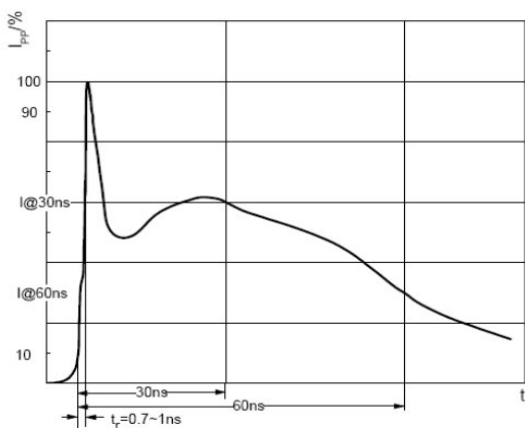
ESD STANDARDS COMPLIANCE

IEC61000-4-2 Standard

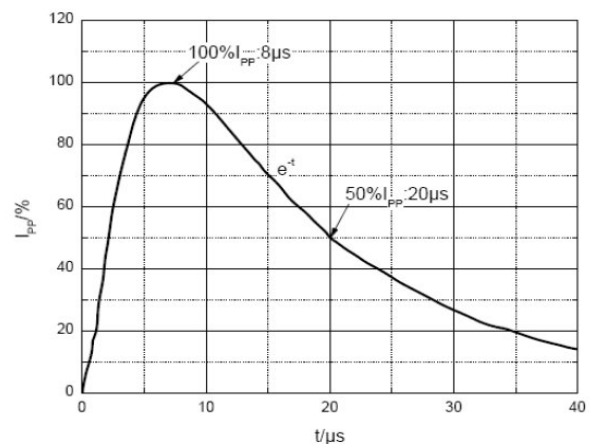
Contact Discharge		Air Discharge	
Level	Test Voltage kV	Level	Test Voltage kV
1	2	1	2
2	4	2	4
3	6	3	8
4	8	4	15

JESD22-A114-B Standard

ESD Class	Human Body Discharge V
0	0~249
1A	250~499
1B	500~999
1C	1000~1999
2	2000~3999
3A	4000~7999
3B	8000~15999



ESD pulse waveform according to IEC61000-4-2



8/20 μs pulse waveform according to IEC 61000-4-5

RATINGS AND CHARACTERISTICS CURVES

