

ESDFBP05CL

Ultra Low Cj Single Line ESD Protection Diode

Description

The ESDFBP05CL 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.

Features

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

Application

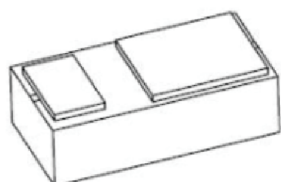
- Cellular phones handsets and Accessories
- PDA's
- MP3 players
- Digital cameras
- Portable applications
- mobile telephone

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)

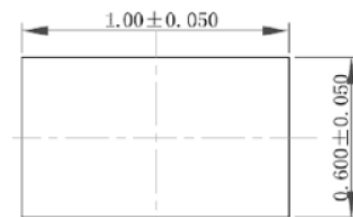
Packing & Order Information

3,000/Reel

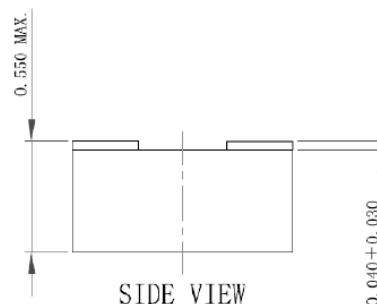


**RoHS
COMPLIANT**

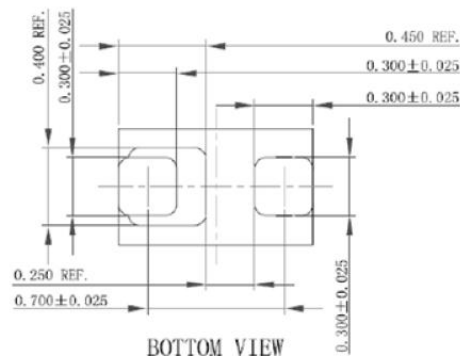
WPFBP-02L



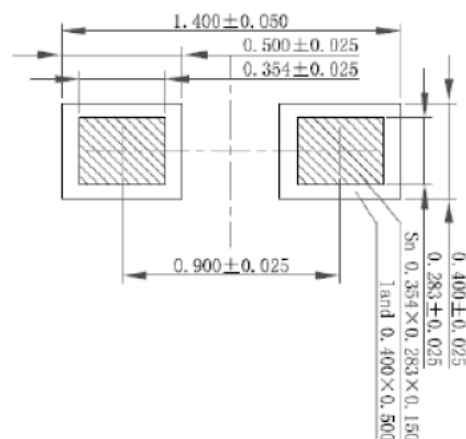
TOP VIEW



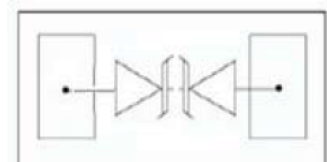
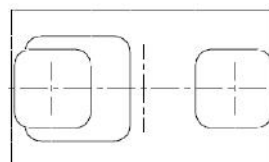
SIDE VIEW



BOTTOM VIEW



Graphic symbol



ESDFBP05CL

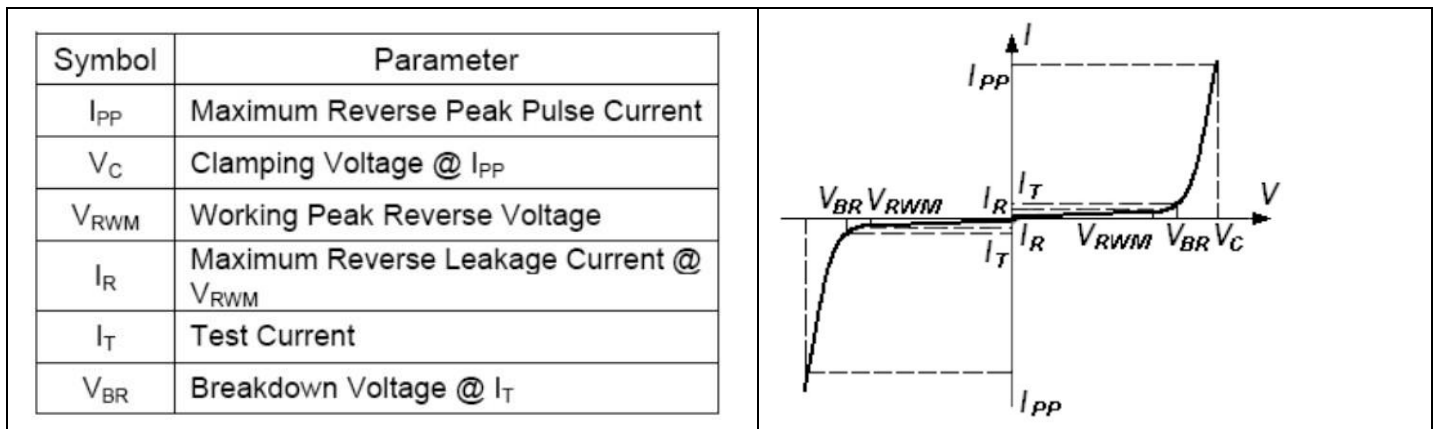
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Maximum ratings

Symbol	Parameter	Value	Unit
	IEC 61000-4-2 (ESD) Contact	8	kV
Ppk	Peak Pulse Power	120	W
I_{PP}	Peak Pulse Power	12	A
TJ, TSTG	Junction and Storage Temperature Range	-55 to +150	°C
TL	Lead Solder Temperature – Maximum (10 Second Duration)	260	°C

Electrical Characteristics (TA=25°C unless otherwise noted, VF=0.9V Max. @ IF=10mA for all types)

Part Numbers	V_{BR}			I_T mA	V_{RWM} V	I_R μA	C Typ. 2v bias
	Min. V	Typ. V	Max. V				
ESDFBP05CL	6.1	6.6	7.2	1	5	1	3



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Typical Device Characteristics

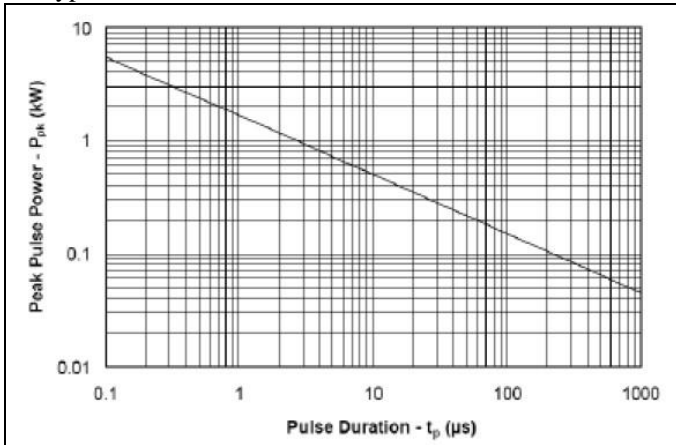


FIG.1-NON-REPETITIVE PEAK PULSE POWER VERSUS PULSE TIME

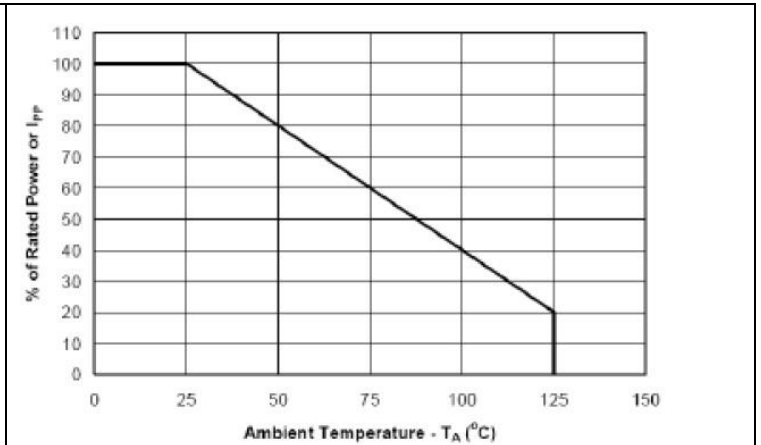


FIG.2-POWER DERATING CURVE

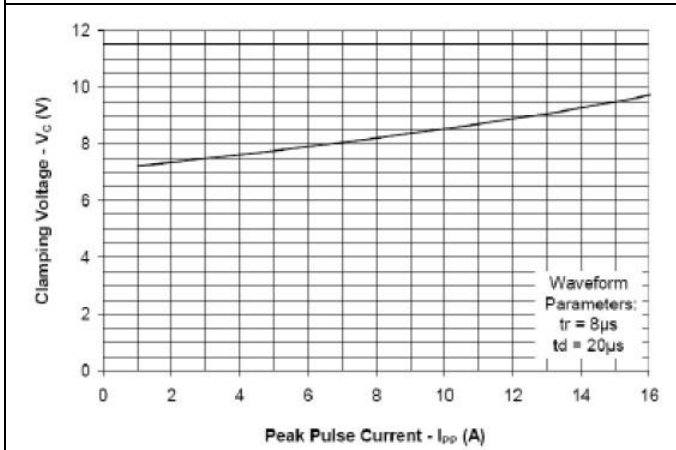


FIG.3-CLAMPING VOLTAGE VS. PEAK PULSE CURRENT

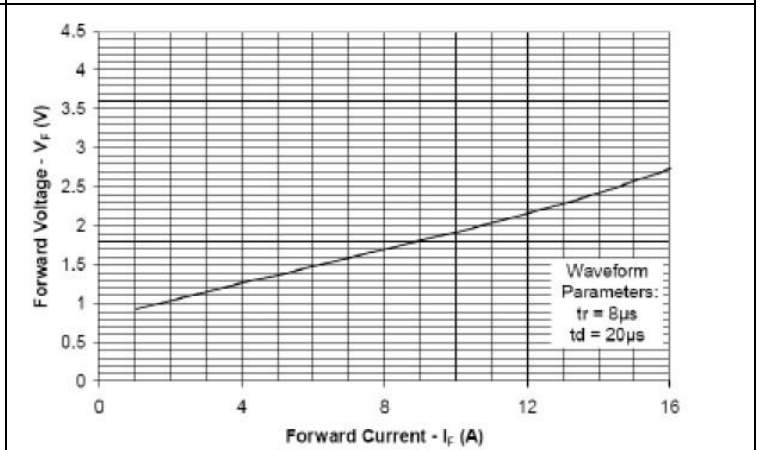


FIG.4-FORWARD VOLTAGE VS. FORWARD CURRENT

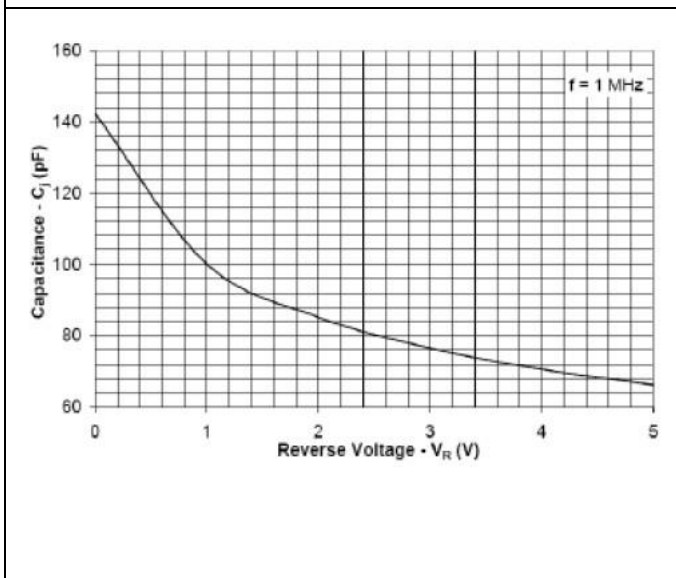


FIG.5-JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

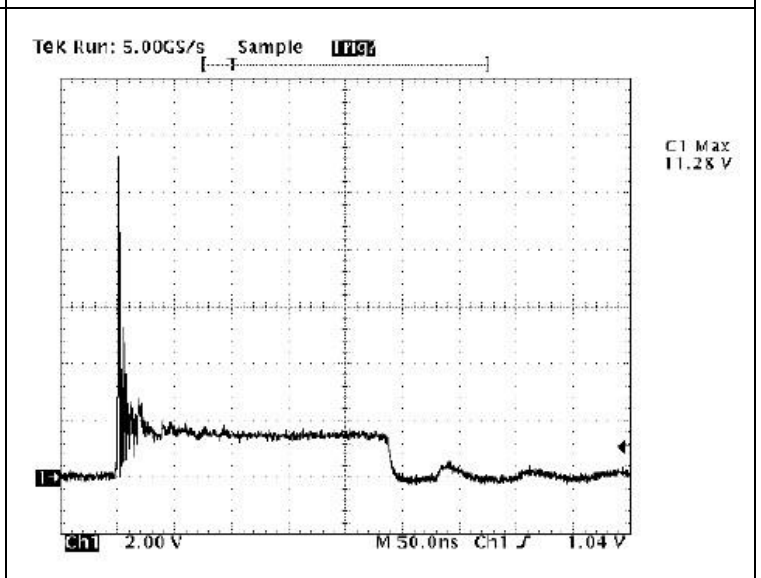


FIG.6-ESD CLAMPING (8KV CONTACT PER IEC 6100-4-2)

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