

Bencent PCB SPD Features

- Size Design 41.6 × 31 × 38.2(±1.0)mm
- High Current Handling Capability 20kA @ 8/20μs
- Fast Response and Long Service Life
- Reliable to Protect Surge Voltage
- Possess SPD Disconnection
- Status indicator contacts
- Impulse Test Classification: class II tests

Application information

- Single-phase AC Power

Exterior

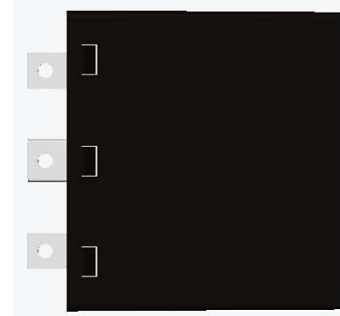


Package (Top View)

N/L

PE

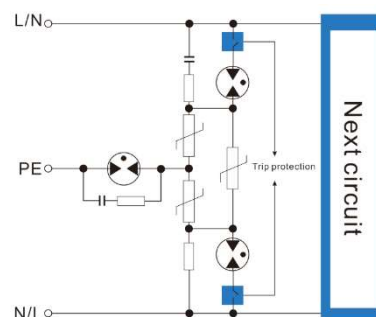
L/N



Agency Approvals

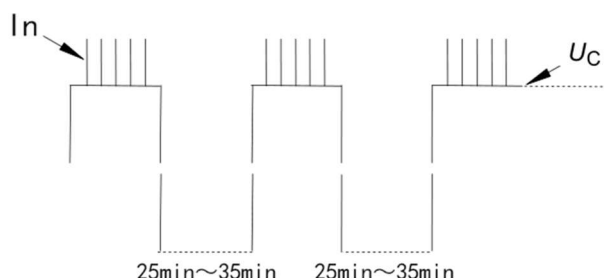
Icon	Description
RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003
	Mean lead free

Schematics



Test Method

1. Test Ability Executive standard: IEC 61643-11: 2011, GB 18802.1-2011.
2. Test Port: L-PE, N-PE and L-N.
3. Three groups of five impulses of 8/20 current impulses with positive polarity shall be applied, Each impulse shall be synchronized to the power frequency. The test samples are connected to U_c , Starting from 0° the synchronization angle shall be increased in steps of 30° with a tolerance of ± 5° for each synchronization angle, The tests are described in Figure.
4. The interval between the impulses is 50 s – 60 s, the interval between the groups is 25 min – 35 min.



Electrical Parameter

Rated operating voltage U_n	220	V
Maximum continuous operating voltage $U_c^{1)2)}$	300	VAC
Nominal discharge current I_n (8/20 μ s) ³⁾	20	kA
(L-N/L-PE/N-PE) Voltage protection level U_p (8/20 μ s) ³⁾	1.5	kV
Operating and storage Temperature	-40 ~ +85	°C
Modes of protection	L-PE/N-PE/L-N	/
IP Code	IP20	/
Housing material ³⁾	UL94 V0	/

1) At delivery AQL 0.65 level II GB/T 2828.1-2003

2) In ionized mode

3) Terms and current waveforms in accordance with GB18802.1-2011, IEC 61643-11: 2011.

Part Numbering System

B SPD 220 C 20 P -5
(1) (2) (3) (4) (5) (6) (7)

(1) Bencent

(2) SPD Surge Protective Device

(3) Nominal Voltage: 220VAC

(4) SPD Classification: C

(5) Nominal Discharge Current: 20kA

(6) P Surge Protective Device Installed on PCB

(7) "-5" means the special structure of this type

Product Characteristics

Lead Material	PCB
Body Material	PC、Ceramics、Epoxy、Metal
Terminal Finish	Copper Tin Plated

Environmental Reliability Characteristics

Testing items	Technical standards
High Temperature Storage Test	Temperature: 85°C Time: 2H
Low Temperature Storage Test	Temperature: -40°C Time: 2H
Thermal Shock	Temperature: -40~85°C Cycle: 5
Vibration	Frequency: 10Hz~55Hz Acceleration: 20m/s ² (2g) Direction of vibration: x/y/z Time: 30min
Resistance of soldering heat	Temperature: 260±5°C Time of dip soldering: 10s, 1time

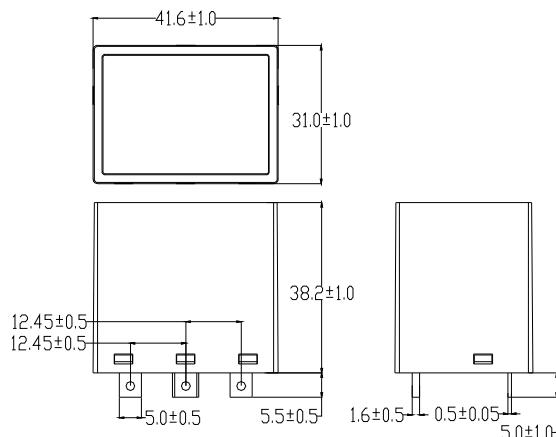
Note: Up-screen program can be specified by customer's request via contacting Bencent service

Solderability test

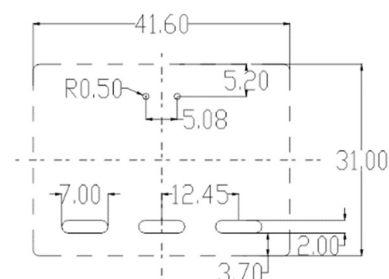
Solderability	Solder Pot Temperature:	245°C±5°C
	Solder Dwell Time:	4-6 seconds

Product Dimensions

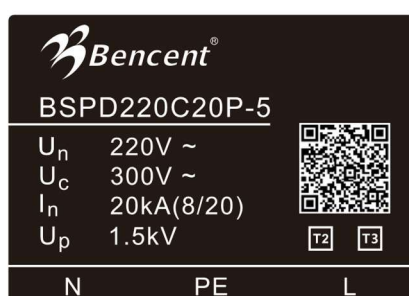
Unit:mm



PCB Top Drilling Layer

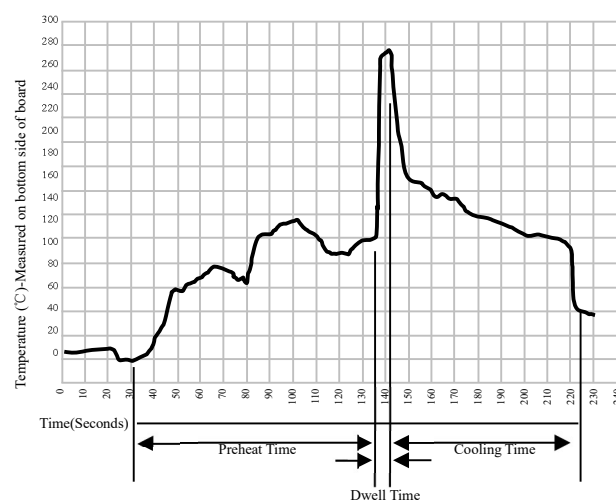


Identification

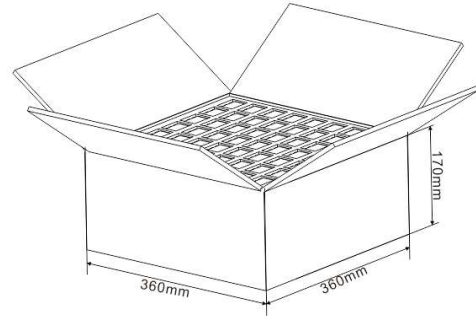
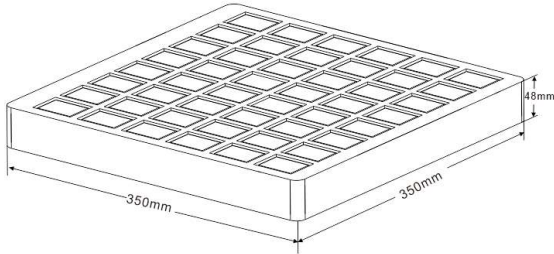


Wave Solderingprofile

Wave Soldering Condition		Pb-Free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time (min to max)	60 – 180 secs
Solder Pot Temperature		270°C Max
Solder Dwell Time		2-5 seconds



Package Information



Outline	Per Dish (PCS)	Per Carton (PCS)	Carton Size(mm)		
			L	W	H
Skin packing	48	144	360	360	170