



Electrical Parameter

Rated operating voltage $U_n$	230	V
Maximum continuous operating voltage $U_c^{1)2)}$	320	V
Nominal discharge current ( $8/20\mu s$ ) <sup>3)</sup>	20	kA
Front of wave spark-over voltage ( $1.2/50\mu s, 6kV$ ) <sup>3)</sup>	2.0	kV
Follow current extinguishing capability <sup>3)</sup>	320/500	V/A
Operating and storage Temperature	-40 ~ +85	°C
Modes of protection	L-N、L-PE、N-PE	/
IP Code	IP20	/
Housing material <sup>3)</sup>	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    230    C    20    P    F    -    01    A  
(1) (2) (3) (4) (5) (6) (7) (8) (9)

(1) Bencent

(2) SPD Surge Protective Device

(3) Nominal Voltage: 230VAC

(4) SPD Classification: C

(5) Nominal Discharge Current: 20kA

(6) P Surge Protective Device Installed on PCB

(7) F Full mode protection

(8) "01" means the special structure of this type

(9) "A" means the same series of optimised products as "01"

Product Characteristics

Body Material	Ceramics Iron-nickelectrode Epoxy
Terminal Material	Tinned Copper Wire

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 Cycle test	Temperature: -40~85°C    Cycle: 5
Vibration	Frequency: 10Hz~55Hz Acceleration: 20m/s <sup>2</sup> (2g) Direction of vibration: x/y/z Time: 30min
Resistance of soldering heat	Temperature: 260±5°C Time of dip soldering: 10s, 1time

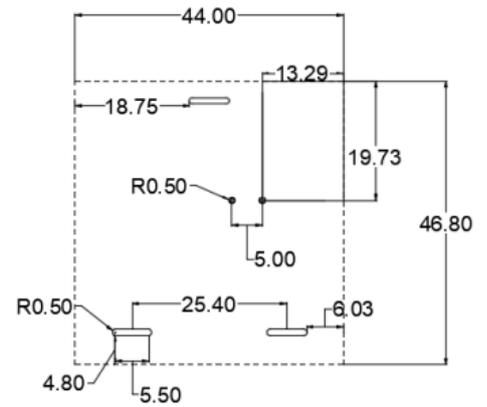
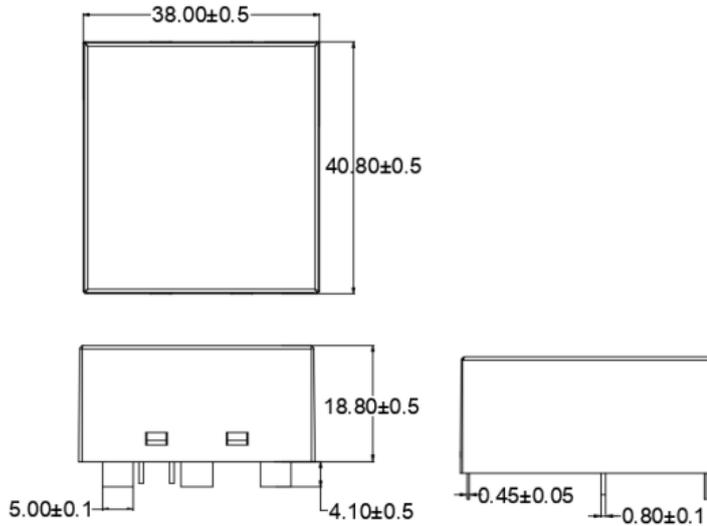
Note: Up-screen program can be specified by customer's request via contacting Bencent service

Solderability test

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

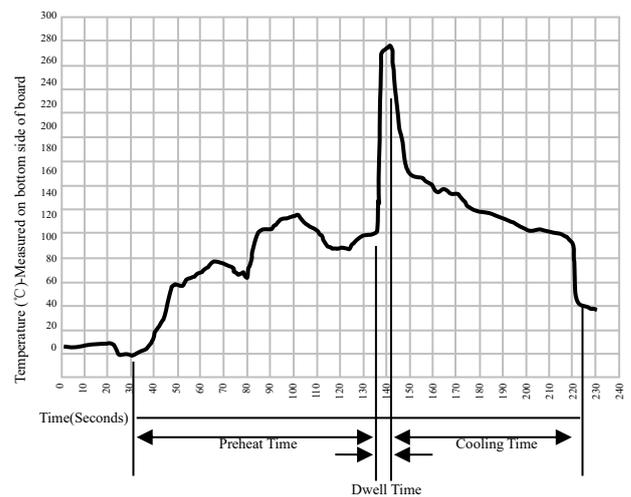
Product Dimensions

PCB Top Drilling Layer

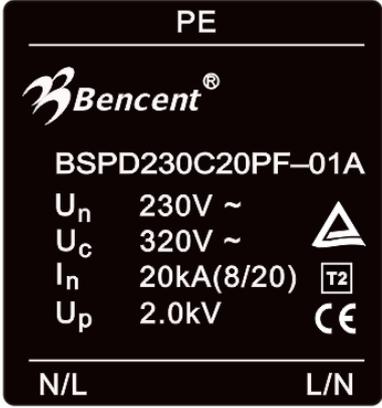


Wave Soldering profile

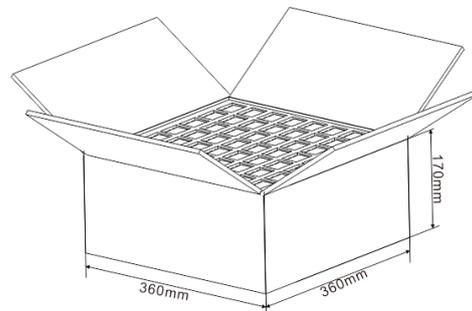
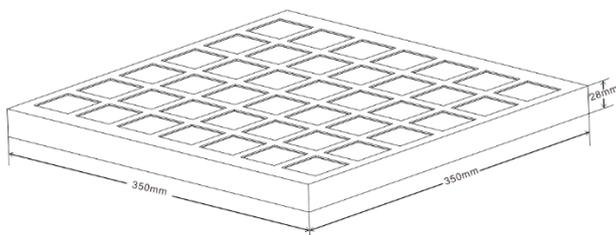
Wave Soldering Condition		Pb-Free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time (min to max)	60 – 180 secs
Solder Pot Temperature		270°C Max
Solder Dwell Time		2-5 seconds



Marking on Product

Main marking	Remote signaling marking
 <p>PE</p> <p><b>Bencent</b><sup>®</sup></p> <p>BSPD230C20PF-01A</p> <p>U<sub>n</sub> 230V ~</p> <p>U<sub>c</sub> 320V ~ </p> <p>I<sub>n</sub> 20kA(8/20) </p> <p>U<sub>p</sub> 2.0kV </p> <p>N/L L/N</p>	 <p>Remark: xxxxx... A variable-length numeric code that represents the batch code of a product and is used only for information product tracking within the company.</p>

Package Information



Outline	Per Dish (PCS)	Per Carton (PCS)	Carton Size(mm)		
			L	W	H
Skin packing	42	210	360	360	170