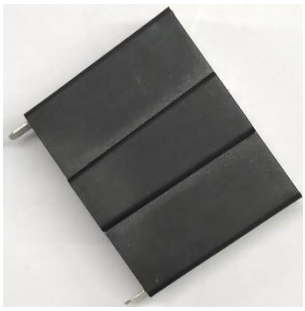
Features

- Size Design33.5*12*30mm
- High Current Handling Capability20kA @ 8/20μs
- Flame retardant
- Reliable to Protect Surge Voltage
- explosion-proof
- Short circuit without fire

Exterior



Application information

- Secondary and tertiary surge protection for low-voltage AC and DC power supply and distribution system and electrical equipment

Package (Top View)

Pin1 Pin2

Agency Approvals

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

Schematics

Test reference standards

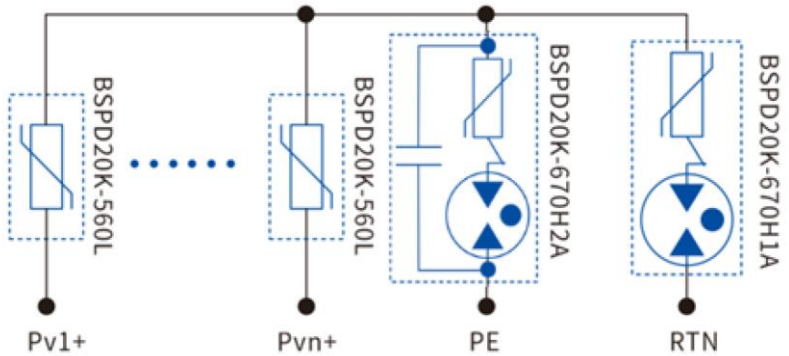
1) GB / T 18802.31-2021： Low-voltage surge protective devices-Part 31:Surge protective devices connected to photovoltaic installations-Requirements and test methods.
2) ILNAS-EN 61643-31:2019 :Low-voltage surge protective devices - Part 31: Requirements and test methods for SPDs for photovoltaic installations
3) IEC 61643-1 Edition 1.1 Surge protective devices connected to low-voltage power distribution systems -Part 1: Performance requirements and testing methods

Electrical Parameter

Items	Technical parameter
Product Model	BSPDPV20K-560L
MOV Voltage（1mA）	680V,±10%
Maximum continuous operating voltage Uc	420VAC/560VDC
Maximum continuous operating voltage of photovoltaic application Ucpv	560V
Nominal discharge current In（8/20μs）	10KA
Max discharge current Imax（8/20μs）	20KA
Voltage protection level Up	Platform votage≤1.8KV[1)]
Rated short-circuit current of photovoltaic application Iscpv Matching external separator	50A
Operating and storage Temperature	-40～+85℃
Modes of protection	Refer to Application Principle Chart
IP Code of enclosure	IP20
Flame retardant grade of enclosure	UL94 V0
Housing material	PBT
Appearance color	Black

1) Manufacturer claims

Application Principle Chart



Part Numbering System

BSPD	PV	20K	-560	L
(1)	(2)	(3)	(4)	(5)

(1) BSPD:Bencent SPD
(2) PV:Photovoltaic Module
(3) 20K：Max discharge current Imax（8/20μs）20KA
(4) 560：Maximum continuous operating voltage of photovoltaic application Ucpv560V
(5) L:680V(1mA)MOV with explosion-proof;

Applicable environment and safety regulations

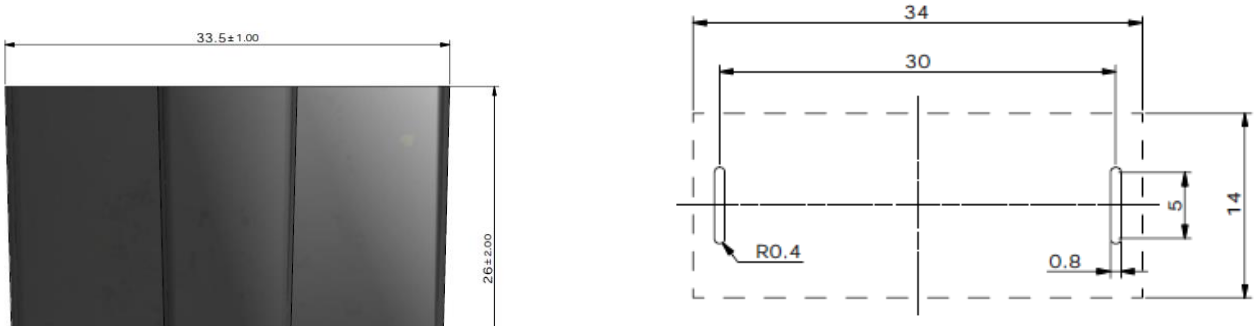
Items	Requirement Specification
Operating temperature	-40℃~85℃
Storage temperature	-40℃~85℃
relative humidity	5%~95%
Applicable altitude	≤5000m
The alarm circuit of this lightning protection module complies with the requirements of EN60950-1 for enhanced insulation, and the remote signaling alarm interface and main circuit. The insulation withstand voltage is 3750Vrms.	

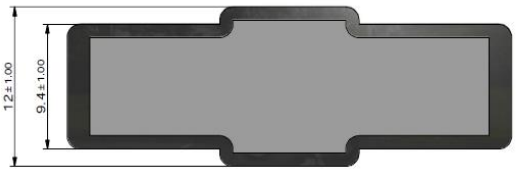
Note: Up-screen program can be specified by customer's request via contacting Bencent service

Product Dimensions

Unit:mm

PCB Top Drilling Layer

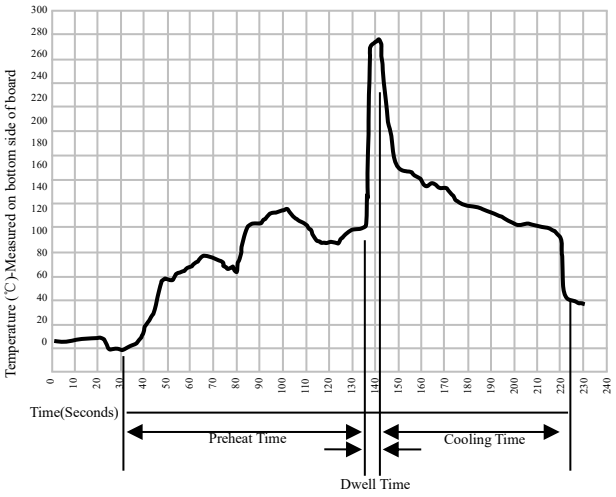




Identification

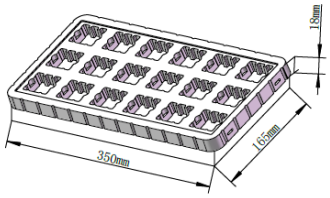
Wave Soldering profile

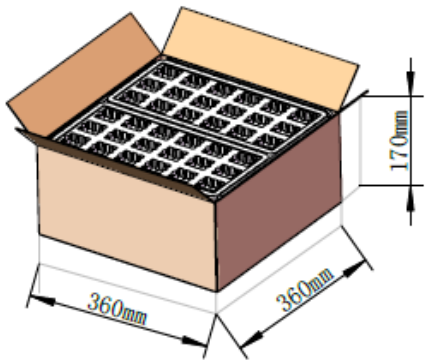
Wave Soldering Condition		Pb-Free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time （min to max）	60 – 180 secs
Solder Pot Temperature		265℃ Max
Solder Dwell Time		2-5 seconds



Products can be welded manually or using wave soldering; It is recommended to use a thermostatic soldering iron of 100W at a temperature of Set 420 ℃± 5 ℃, and the welding time is 1-3 seconds. It is recommended to use normal temperature solder wire for soldering.

Package Information





Outline	Per Dish (PCS)	Per Carton (PCS)	Carton Size(mm)		
			L	W	H
Skin packing	18	324	360	360	170