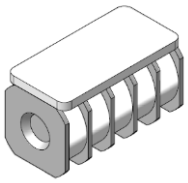
Features

- High Current Handling Capability20,000A @ 8/20μs
- Low Capacitance and Insertion Loss
- Fast Response and Long Service Life
- Moisture sensitivity level：Level 1

Exterior

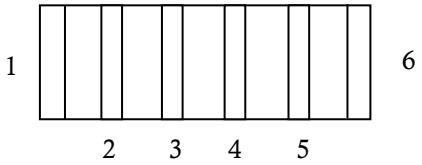


Note: The product body and the chip are sticked with glue.

Application Information

- Wireless Base Station
- DC-48V Power Port

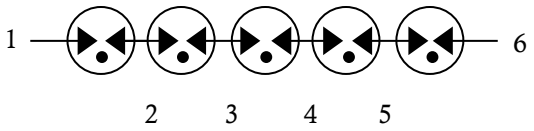
Package (Top View)



Agency Approvals

Icon	Description
RoHS	Compliance with 2011/65/EU
HF	Compliance withIEC61249-2-21:2003
Pb	Mean lead free
UL	Compliance with UL1449, Certificated E337906

Schematic Symbol



Electrical Parameter

DC Breakdown Voltage[1) 2)] (pin1-6)	100V/s	700-1200（Before test）	V
		500-1300（After test）	
DC Breakdown Voltage [1) 2)] (pin1-2,pin2-3,pin3-4,pin4-5,pin5-6)	100V/s	140-250	V
Impulse Spark-Over Voltage (pin1-6）[3)]	1.2/50μs -8/20μs：6KV/3KA	≤900（Before test）	V
		≤1500（After test）	
Impulse Discharge Current[4)]	10/350μs,±5times	2.5	kA
	8/20μs,±5times	20	kA
Insulation Resistance	DC100V	≥1	GΩ
Maximum DC Working Voltage		60	V
Arc Voltage	At 50 A	⩾60	V
Capacitance at 1 MHz	V_{DC}=0.5V	≤1.5	pF
Operating and storage Temperature		-40-125	℃
Weight		~5.35	g
Marking		Without	

1) At delivery AQL 0.65 level II ISO 2859
2) In ionized mode
3) With 100pF capacitor trigger
4) Terms and current waveforms in accordance with ITU-T Rec. K. 12; IEC 61643-21

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications

Part Numbering System

BD	122	-	2
(1)	(2)		(3)

(1) Bencent Multi-pole Arrester Stack

(2) Max DC Breakdown Voltage, e.g., 122=12×10^2=1200V

(3) "-2" is stand for special customer requirements

Product Characteristics

Lead Material	Copper
Body Material	Ceramics
Terminal Finish	100% Matte-Tin Plated

Environmental Reliability Characteristics

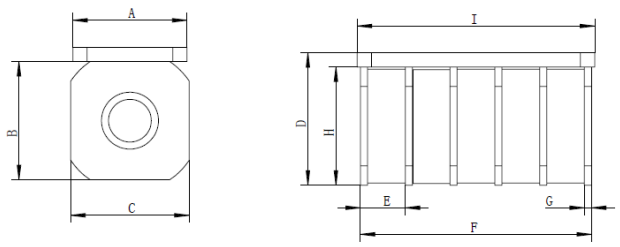
Testing items	Technical standards
High Temperature Storage Test	Temperature: 125℃ Time:2H
Low Temperature Storage Test	Temperature: -40℃ Time:2H
Vibration	Frequency：10-500Hz Amplitude：0.15mm Time：45mins
Resistance of soldering heat	Temperature: 260±5℃ Time of dip soldering：10s，1time

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

Solderability Test

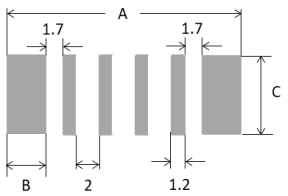
Solderability	Solder Pot Temperature:	245℃±5℃
	Solder Dwell Time:	4-6 seconds

Product Dimensions



REF	mm	inch
A	8±0.2	0.315±0.008
B	8.3±0.2	0.327±0.008
C	8.3±0.2	0.327±0.008
D	9.5±0.2	0.374±0.008
E	3.2±0.2	0.126±0.008
F	16.5±0.5	0.65±0.02
G	0.5±0.05	0.02±0.002
I	$17_{-1}^{+0.5}$	$0.669_{-0.039}^{0.020}$

Recommended Soldering Pad

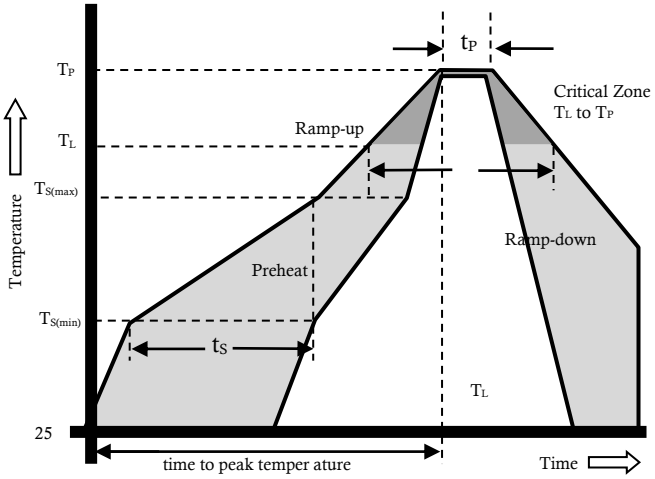


REF	mm	inch
A	22.4	0.882
B	4.1	0.161
C	8.5	0.335

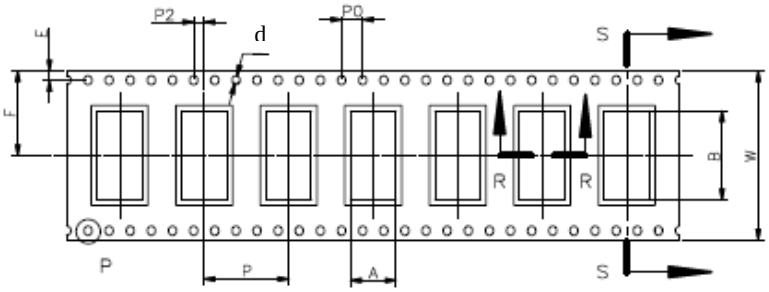
Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications

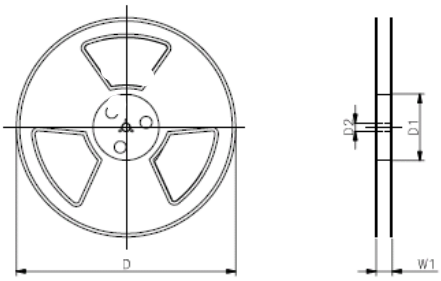
Reflow Profile

Reflow Condition		Pb-Free assembly
Pre Heat	Temperature Min	150°C
	Temperature Max	200°C
	Time （min to max）	60 – 180 secs
Average ramp up rate（Liquids）Tamp （T_L） to peal		3°C/second max
T_S(max) to T_L - Ramp-up Rate		3°C/second max
Reflow	- Temperature (T_L) (Liquids)	217°C
	- Temperature (T_L)	60 – 150 seconds
Peak Temperature (T_p)		260+0/-5 °C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes Max.
Do not exceed		260°C



Package Reel Information





REF	mm	inch
W	32±0.3	1.260±0.012
A	8.6±0.1	0.339±0.004
B	17.3±0.1	0.661±0.004
P	16±0.1	0.63±0.004
P0	4±0.1	0.157±0.004
P2	2±0.1	0.079±0.004
d	$\Phi 1.5^{+0.1}_{-0}$	$\Phi 0.059^{+0.004}_{-0}$
E	1.75±0.1	0.069±0.004
F	16±0.1	0.797±0.004
W1	36±2.0	1.89±0.079
D	Φ330.2	Φ13
D1	Φ100±1	Φ3.94±0.039
D2	Φ13±0.15	0.512±0.006

OUTLINE	BOX/REEL (PCS)	INSIDE CARTON (PCS)	PER CARTON (PCS)	CARTON SIZE(mm)		
				L	W	H
TAPING	300	300	1200	360	360	220

Specifications are subject to change without notice.
Customers should verify actual device performance in their specific applications