


Features

- Small Size Design 5.4×5.4×5.0mm
- Current Handling Capability 10,000A @ 8/20μ s
- Low Capacitance and Insertion Loss
- Fast Response and Long Service Life
- Moisture sensitivity level: Level 1

Application Information

- Power port

Agency Approvals

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

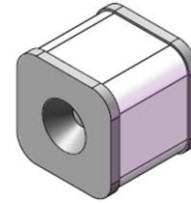
Electrical Parameter

DC Breakdown Voltage 1)2)	100V/s	72-108	V
Impulse Spark-over Voltage	At 1kV/μs	for 99 % of measured values	≤600
	At 1kV/μs	Typical values of distribution	≤550
Impulse Discharge Current 3)	8/20μs, ± 5times	10,000	A
Arc Voltage	At 1A	~10	V
Insulation Resistance	DC=50V	≥1	GΩ
Capacitance at 1MHz	VDC=0.5V	≤0.5	pF
Weight		~0.6	g
Operating And Storage Temperature		-40-125	℃
Marking		Without	

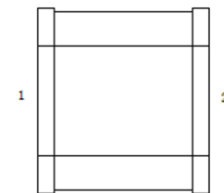
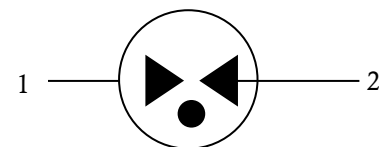
1) At delivery AQL 0.65 levelII ISO 2859

2) In ionized mode

3) Terms and waveforms in accordance with ITU-T Rec. K. 12; IEC 61643-21

Exterior


SMD

Package (Top View)

Schematic Symbol


Gas Discharge Tube

Version: A0 2019-08-07

Part Numbering System

BJ 091 M -1

(1) (2) (3) (4)

(1) Bencent Gas Discharge Tube

(2) Series: DC Breakdown Voltage,

 e.g.: 091=9×10¹=90V

 (3) Tolerance of DC Breakdown Voltage, M=±20%,
 N=±30%, the Specific tolerance is decided by the table
 of "Electrical Parameter"

(4) "-1" means the special structure of this type.

Product Characteristics

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

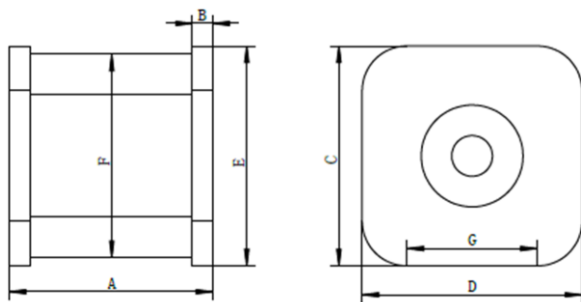
Environmental Reliability Characteristics

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

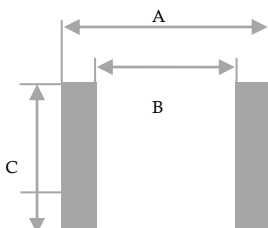
Note: Up-screen program can be specified by customer's request via contacting Bencent service

Solderability test

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

Product Dimensions


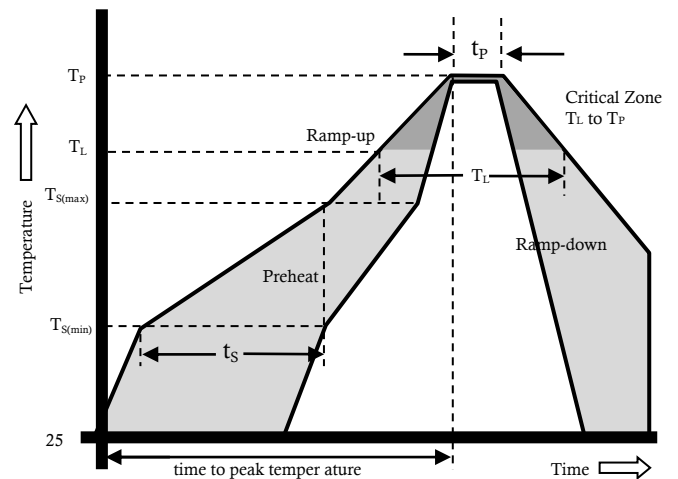
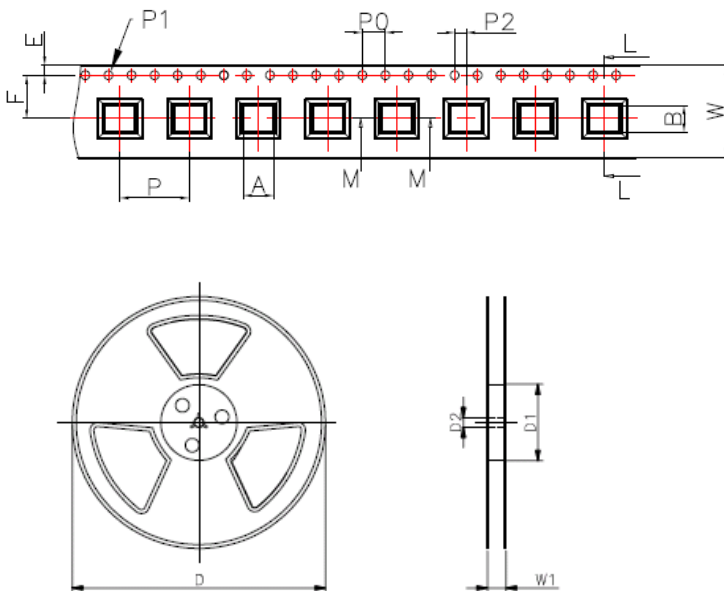
REF	mm	inch
A	5.0±0.2	0.197±0.008
B	0.5±0.1	0.020±0.004
C	5.4±0.15	0.212±0.006
D	5.4±0.15	0.212±0.006
E	5.4±0.15	0.212±0.006
F	5.2±0.15	0.204±0.006
G	3.8±0.2	0.150±0.008

Recommended Soldering Pad


REF	mm	inch
A	6.0	0.236
B	3.0	0.118
C	5.4	0.212

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) T_{amp} (T_L) to peak		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)		~10 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
A	5.7±0.1	0.224±0.004
B	5.3±0.1	0.208±0.004
P0	4.0±0.1	0.157±0.004
P2	2.0±0.1	0.079±0.004
P	12.0±0.1	0.472±0.004
P1	1.5±0.1	0.060±0.004
E	1.75±0.1	0.069±0.004
F	7.5±0.1	0.295±0.004
W	16.0±0.3	0.630±0.012
D	Φ 330.0	Φ 13.0
D1	Φ 50Min	Φ 1.97Min
D2	Φ13±0.5	0.512±0.020
W1	16.8±2.0	0.661±0.079

Outline	Reel (PCS)	Per Carton (PCS)	Reel Diameter (mm)	Carton Size(mm)		
				L	W	H
TAPING	1,000	16,000	330	360	360	380