

Features

- Small Size Design EIA 18124.5×3.2×2.7mm
- Current Handling Capability 3,000A @ 8/20μ s
- Low Capacitance and Insertion Loss
- Fast Response and Long Service Life
- Reliable to Protect Electrostatic Surge
- Moisture sensitivity level: Level 1

Application Information

- Ethernet

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	63-117	V
Impulse Spark-over Voltage	At 1kV/μs	for 99 % of measured values ≤650	V
	At 1kV/μs	Typical values of distribution ≤550	V
Impulse Discharge Current ³⁾⁴⁾	8/20μs 10 operation[5×(+) & 5×(-)]	3,000	A
Arc Voltage	At 1A	~10	V
Insulation Resistance	DC=50V	≥1	GΩ
Capacitance at 1 MHz	VDC=0.5V	≤0.5	pF
Weight		~0.20	g
Operating And Storage Temperature		-40-125	°C
Marking		Without	

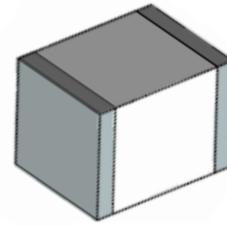
1) At delivery AQL0.65 level II ISO 2859

2) In ionized mode

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

4) After impulse discharge current test: DC breakdown voltage: 63-130

Exterior

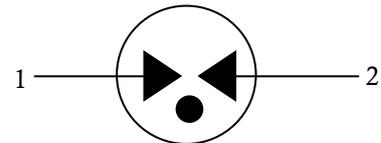


SMD

Package (Top View)



Schematic Symbol



Gas Discharge Tube

Version: A5 2018-03-26

Part Numbering System

Product Characteristics

BC 091 N -H
(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) "-H" denotes the higher impulse discharge current

Lead Material	Copper or iron nickel alloy
Body Material	Ceramics
Terminal Finish	100% Matte-Tin Plated

Environmental Reliability Characteristics

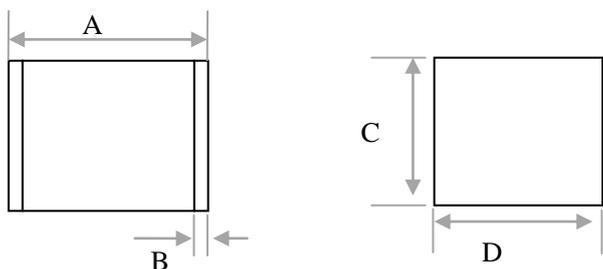
Testing items	Technical standards
High Temperature Storage Test	Temperature: 125°C Time:2H
Low Temperature Storage Test	Temperature: -40°C Time:2H
Vibration	Frequency: 10-500Hz Amplitude: 0.15mm Time: 45mins
Resistance of soldering heat	Temperature: 260±5°C Time of dip soldering: 10s, 1time

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

Solderability Test

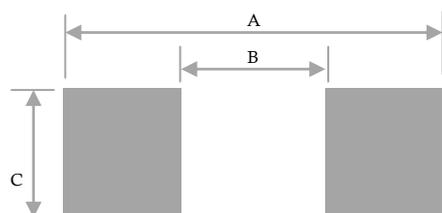
Solderability	Solder Pot Temperature:	245°C ± 5°C
	Solder Dwell Time:	4-6 seconds

Product Dimensions



REF	mm	inch
A	4.5±0.3	0.177±0.012
B	0.5±0.2	0.020±0.008
C	2.7±0.2	0.106±0.008
D	3.2±0.2	0.126±0.008

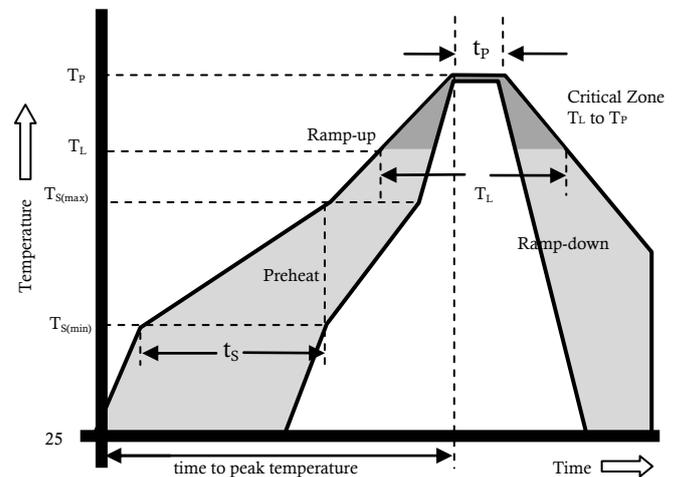
Recommended Soldering Pad



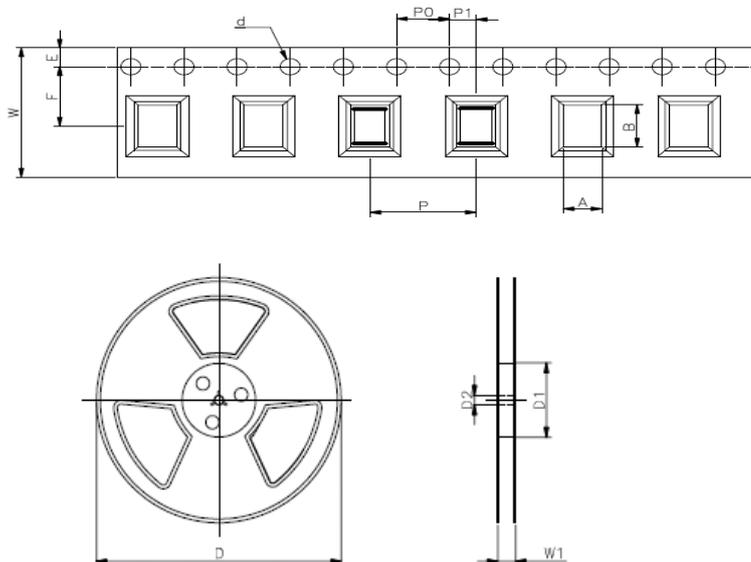
REF	mm	inch
A	5.5	0.217
B	3.5	0.138
C	3.5	0.138

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)		8 – 20 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	3.7±0.2	0.146±0.008
B	5.0±0.1	0.197±0.004
d	Φ 1.5±0.1	Φ 0.059±0.004
E	1.75±0.1	0.069±0.004
F	5.5±0.1	0.217±0.002
P	8.0±0.1	0.315±0.004
P0	4.0±0.1	0.157±0.004
P1	2.0±0.1	0.079±0.004
W	12.0±0.2	0.472±0.008
D	Φ330.0	Φ13.0
D1	Φ50Min	Φ1.97Min
D2	Φ13±0.15	0.512±0.006
W1	16.8±2.0	0.661±0.079

OUTLINE	REEL (PCS)	PER CARTON (PCS)	REEL DIAMETERS (mm)	CARTON SIZE(mm)		
				L	W	H
TAPING	2,500	40,000	330	360	360	380

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Gas Discharge Tubes - GDTs / Gas Plasma Arrestors](#) *category:*

Click to view products by [Bencent](#) *manufacturer:*

Other Similar products are found below :

[M51-A90X](#) [PMT1023004](#) [PMT1040004](#) [CG2800](#) [GTCR37-231M-R10](#) [WPGT-2N145B6L](#) [WPGT-2N230B6L](#) [WPGT-2N470B6L](#) [WPGT-2RM230A6L](#) [WPGT-2RM350A6L](#) [WPGT-2RM70A6L](#) [WPGT-2RM90A6L](#) [WPGT-2S145](#) [WPGT-2S350](#) [WPGT-2S470](#) [WPGT-3R350CF](#) [WPGT-3R350G1](#) [WPGT-3R90G1](#) [WPGT-3R75G1](#) [WPGT-3R470G1](#) [WPGT-3R250C](#) [WPGT-3R230G1](#) [WPGT-2S230](#) [WPGT-2RM145A6L](#) [WPGT-2R1000B8L](#) [WPGT-2N70B6L](#) [WPGT-2N350B6L](#) [WPGT-2N230B6L1](#) [CG2145](#) [T61-C350X](#) [9071.99.0547 \(73_Z-0-0-547\)](#) [B88069X6940B152](#) [RF1219-000](#) [A9L16618](#) [RF2339-000](#) [9071.99.0052\(73_Z-0-0-52\)](#) [9071.99.0054](#) [CG32.7L](#) [CG6400SM](#) [CG6470SM](#) [CG7250MS](#) [CG7400MS](#) [SPBT12-280/1](#) [SPCT2-280/3](#) [SPCT2-280/4](#) [T2 20KA 4P](#) [2003-09-SM-RPLF](#) [2026-07-A1](#) [2026-25-C3](#) [2039-80-BLF](#)