

BA301N

Order Code: BA301N

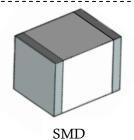
Version: A1 2017-08-08

Gas Discharge Tube

Features

- Small Size Design EIA 1812 4.5×3.2×2.7mm
- Current Handling Capability 1,000A @ 8/20µ s
- Low Capacitance and Insertion Loss
- Fast Response and Long Service Life
- Reliable to Protect Electrostatic Surge
- Moisture sensitivity level: Level 1

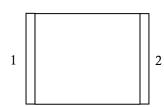
Exterior



Application Information

- RS485/232/422
- Internet

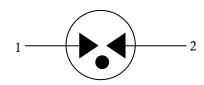
Package (Top View)



Agency Approvals

Icon	Description		
RoHS	Compliance with 2011/65/EU		
HF	Compliance with IEC61249-2-21:2003		
®	Mean lead free		
.7U	Compliance with UL497B, Certificated E232249		

Schematic Symbol



Electrical Parameter

DOD 11 1111 (1)0)	10077	240.200	
DC Breakdown Voltage 1)2)	100V/s	210-390	V
Impulse Spark-over Voltage	At 1kV/µ s	for 99 % of measured values ≤ 800	V
Impuise Spark Over Voltage	At 1kV/μ s	Typical values of distribution ≤700	V
Impulse Discharge Current 3)	8/20µ s	1,000	A
impuise Discharge Current 3)	10 operations [5x (+) & 5x (-)]	1,000	A
Arc Voltage	At 1A	~8	V
Insulation Resistance	DC=100V	≥1	GΩ
Capacitance at 1 MHz	VDC=0.5V	≤1.0	pF
Weight		~0.20	g
Operating And Storage Temperature		-40-90	$^{\circ}$
Marking		Without	

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



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Part Numbering System

BA 301 N (1) (2) (3)

- (1) Bencent Gas Discharge Tube
- (2) Series: DC Breakdown Voltage, e.g.:301=30×101=300V
- (3) Tolerance of DC Breakdown Voltage, M=+-20%,

N=+-30%, the Specific tolerance is decided by the table of "Electrical Parameter"

Product Characteristics

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

Environmental Reliability Characteristics

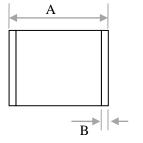
Testing items	Technical standards		
High Temperature Storage Test	Temperature: 90°C Time: 2H		
Low Temperature Storage Test	Temperature: -40°C Time: 2H		
Vibration	Frequency: 10-500Hz Amplitude: 0.15mm Time: 45mins		
Resistance of soldering heat	Temperature: 260±5 °C Time of dip soldering: 10s, 1time		

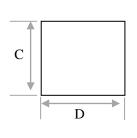
Note: Up-screen program can be specified by customer's request via contacting Bencent service

Solderability Test

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

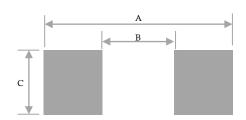
Product Dimensions





REF	mm inch	
A	4.5±0.3	0.177±0.012
В	0.5±0.2	0.020±0.008
С	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
В	3.5	0.138
С	3.5	0.138

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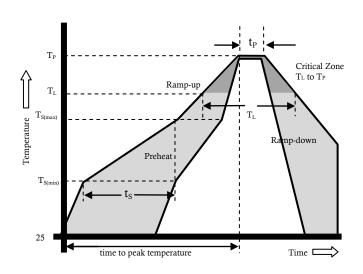


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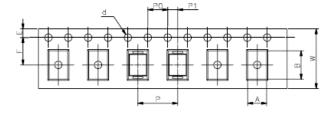
Reflow Profile

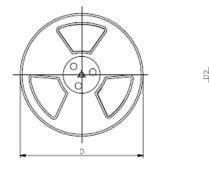
Reflow Condition			Pb-Free assembly		
D	Te	emperature Min	150 ℃		
Pre Heat	Te	mperature Max	200 ℃		
пеаі	Ti	me (min to max)	60 – 180 secs		
Average ramp up rate (Liquids) Tamp (T_L) to peal		o up rate (Liquids) Tamp	3 °C/second max		
T _S (max) t	to T	L - Ramp-up Rate	3 ℃/second max		
Reflow		- Temperature (T_L) (Liquids)	217 ℃		
		- Temperature (T _L)	60 – 150 seconds		
Peak Temperature (T _P)		ature (T _P)	260+0/-5 ℃		
Time within 5 °C of actual peak Temperature (tp)		•	8 – 20 seconds		
Ramp-down Rate		Rate	6 ℃/second max		
Time 25 $^{\circ}$ C to peak Temperature (T _P)		peak Temperature (T _P)	8 minutes Max.		
Do not exceed		d	260 ℃		

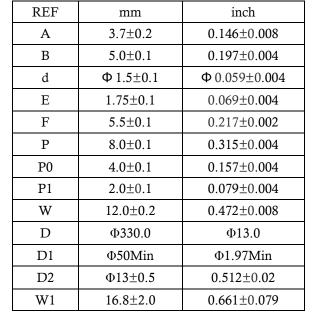


Package Reel Information

ackage Reel infolhation







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

W1

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