

# JIEJIE MICROELECTRONICS CO., Ltd

# J05GxxxN2SE GasDischarge Tube

Rev.1.2

#### **FEATURE**

- ♦ Eliminates small size design EIA 3.2×1.6×1.6mm.
- → Current handling capability 500A@8/20µs.
- ♦ Low capacitance and insertion loss.
- → Fast response and long service life.
- ♦ Reliable to protect electrostatic surge.
- ♦ Moisture sensitivity level: Level 1.
- ♦ Storage and operating temperature -40~125°C.



Exterior



Schematic symbol

### **APPLICATION INFORMATION**

- ♦ Repeaters, modems.
- → Telephone interface, line cards.
- ♦ Data communication equipment.
- Line test equipment.

#### **ELECTRICAL CHARACTERISTICS**

Part number	DC breakdown Tolerance	Impulse spark-over	Impulse discharge	Insulation resistance		Co	
	voltage 100V/s(V)	-	voltage 1KV/µs(V)	current 8/20µs(A)	GΩ	DC(V)	(1MHz)
J05G091N2SE	90	±30%	≤650	500	≥1	50	≤1pF
J05G151N2SE	150	±30%	≤750	500	≥1	50	≤1pF
J05G231N2SE	230	±30%	≤950	500	≥1	50	≤1pF
J05G301N2SE	300	±30%	≤1000	500	≥1	50	≤1pF
J05G401N2SE	400	±30%	≤1100	500	≥1	100	≤1pF
J05G471N2SE	470	±30%	≤1200	500	≥1	100	≤1pF

- 1. The parameters of all tested by ITU-T K12.
- 2. Total Impulse discharge current 500A@ 8/20µs by IEC 61000-4-5, 10 shots.
- 3. The capacitance is tested by 1MHz@DC=0.5V.
- 4. The V-T waveform of DCBV and IPBV mus lie between the shades.

### **PART NUMBERING SYSTEM**

<u>J05G</u> <u>091</u> <u>N</u> <u>2S</u> <u>E</u> (1) (2) (3) (4) (5)

(1)JieJie 500A gas discharge tube

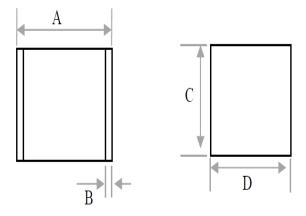
(2) DC breakdown voltage, e.g.,  $091=9\times10^{1}=90V$ 

(3) Tolerance is DC breakdown voltage, M=+-20%, N=+-30%

(4) 2-electrod SMD

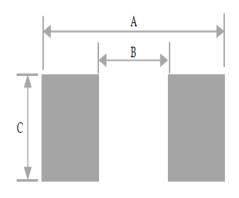
(5) Dimension in  $3.2 \times 1.6 \times 1.6$  (mm)

# **PRODUCT DIMENSIONS (unit: mm)**



REF	mm	inch
A	3.2±0.3	0.126±0.013
В	0.3±0.2	0.013±0.008
С	1.6±0.2	0.063±0.008
D	1.6±0.2	0.063±0.008

### **RECOMMENDED SOLDERING PAD**

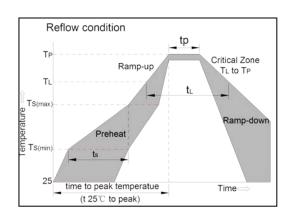


REF	mm	inch
A	4.5	0.177
В	2.0	0.079
С	1.8	0.070

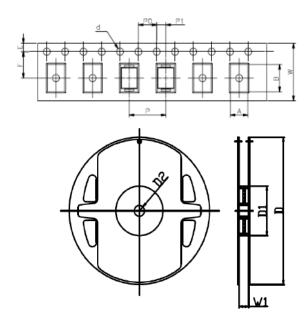


### **REFLOW PROFILE**

Reflow Condition		Pb-Free assembly	
		(see figure at right)	
Pre Heat	-Temperature Min (T <sub>s(min)</sub> )	+150℃	
	-Temperature Max(T <sub>s(max)</sub> )	+200℃	
	-Time (Min to Max) (ts)	60-180 secs.	
Average ramp up rate (Liquidus Temp (T <sub>L</sub> )to peak)		3°C/sec. Max	
T <sub>s(max)</sub> to T <sub>L</sub> - Ramp-up Rate		3°C/sec. Max	
Reflow	-Temperature(T <sub>L</sub> )(Liquidus)	<b>+217</b> ℃	
	-Temperature(t <sub>L</sub> )	60-150 secs.	
Peak Temp (T <sub>p</sub> )		+260(+0/-5)°C	
Time within 5℃of actual Peak Temp (t <sub>p</sub> )		~10 secs.	
Ramp-down Rate		6°C/sec. Max	
Time 25℃ to Peak Temp (T <sub>P</sub> )		8 min. Max	
Do not exceed		+260℃	



## **PACKAGE REEL INFORMATION**



REF	mm	inch
A	1.9±0.2	0.074±0.008
В	3.6±0.2	0.141±0.008
d	Φ1.5±0.2	Ф0.059±0.008
P0	4.0±0.2	0.157±0.008
P1	2.0±0.2	0.079±0.008
P	4.0±0.2	0.156±0.008
E	1.75±0.2	0.069±0.008
F	5.5±0.2	0.217±0.008
W	12.0±0.2	0.472±0.008
D	Φ178±2	$\Phi$ 7.008 $\pm$ 0.079
D1	Φ50Min	Ф1.97Min
D2	Φ13±2	0.512±0.079
W1	12.6±2	0.496±0.079

### **PACKAGING**

Part No.	Reel Quantity (pcs)	Per Carton (pcs)
J05GxxxN2SE	3000	30000

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