

为您的产品保驾护航

PRODUCT DATASHEET

Glass Gas Discharge Tubes

JGS5026 Series Glass Gas Discharge Tubes



Features

- RoHS compliant
- Bilateral symmetrical
- Less decay at on/off state
- Approximately zero leaking current before clamping voltage
- High capability to withstand repeated lightning strikes
- Low electrode capacitance($\leq 1.0\text{pF}$) and high isolation($\geq 100\text{M}\Omega$)
- Temperature, humidity and lightness insensitive

Applications

- Power Supplies
- Motor sparks absorbing
- Data line pulse guading
- Telephone/Fax/Modem
- High frequency signal transmitters/receivers
- Satellite antenna
- Radio amplifiers
- Alarm systems
- Cathode ray tubes in Monitors/Television Viewing Systems

Electriac Characteristics

Part No.	DC Spark-over Voltage V/s(V)	Impulse Spark-over Voltage (1KV/ μs) Max.	Impulse Withstanding Voltage Capacity (10x700 μs)KV	Impulse Discharge Current (8x20 μs)(kA)	Insulation Resistance Min.	Capacitance C Max.(pF)
JGS5026-140A	140 $\pm 30\%$	650	2.0	1.0	100M Ω /50Vdc	1
JGS5026-200A	200 $\pm 20\%$	700	2.0	1.0	100M Ω /100Vdc	1
JGS5026-300	300 $\pm 20\%$	900	2.0	0.5	100M Ω /100Vdc	1
JGS5026-400	400 $\pm 20\%$	-	2.0	0.5	100M Ω /250Vdc	1
JGS5026-500	500 $\pm 20\%$	-	2.0	0.5	100M Ω /250Vdc	1
JGS5026-600	600 $\pm 20\%$	-	2.0	0.5	100M Ω /250Vdc	1

Electrical Performance

Item	Testing condition and method	Performance
DC Spark-over Voltage(Vs)	Measure starting discharge voltage (Vs) by gradually increasing applied DC voltage. Test current is 1mA max. and test period is 1 second max. and the DC voltage ascend up within 100v/second.	Meet specified value
Insulation Resistance(IR)	Measure the insulation resistance(IR) across the terminal at regulated voltage 50V/100V/250V.	100M Ω or over
Capacitance	Measure the electrostatic capacitance by applying a voltage of less than 6V (at 1MHz)between terminals.	1pF or less

Mechanical performance

Item	Testing condition and method	Performance
Lead wire pull strength	Gradually applying the load 0.5Kg and keeping the unit fixed for 10±1sec.	Meet DC spark-over voltage tolerance Not pull out and break the lead wire.
Lead wire bending Strength	The unit shall be secured with its lead wire kept vertical and the 0.25kg weight below be applied in the axial direction. The lead wire shall gradually be bend by 90 in one direction at the point of 3mm from the body along the radius of curvature (0.75mm~0.8mm), and again back the original position. The procedure shall be repeat 2times for 30sec.	Meet DC spark-over voltage tolerance.
Solderability	After dipping the lead wire to a depth of 2mm from the body in a soldering bath of 260±5℃ for 3±1 sec.	Over 95% of the lead wire should be covered with new solder.
Resistance to soldering heat	After dipping the lead wire to a depth of 2mm from the body in a soldering bath of 260±5℃ for 10±1 sec.	Meet DC spark-over voltage tolerance.

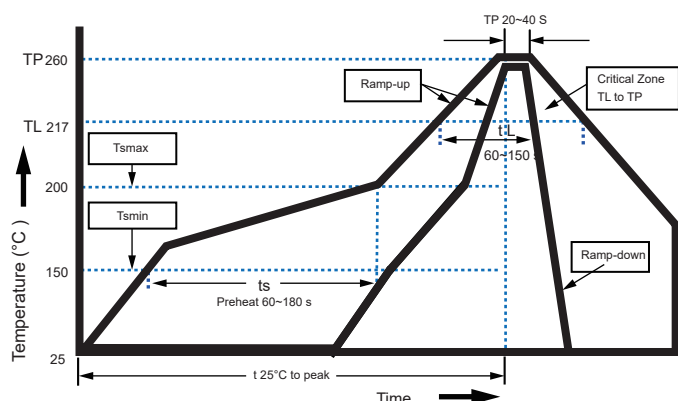
Environmental Characteristics

Item	Testing condition and method	Performance															
Resistance to cold	The specimen shall be subjected to - 45±3 °C for 1000±4 hours without load and then stored at room temperature and humidity for 4 hours.	Meet specified value.															
Resistance to heat	The specimen shall be subjected to 125±2 °C for 1000±4 hours without load and then stored at room temperature and humidity for 4 hours.	Meet specified value.															
Resistance to humidity	The specimen shall be subjected to 45±2 °C 90%-95%R.H.for 1000±4 hours without load and then stored at room temperature and humidity for 4 hours .	Meet specified value.															
Heat cycle	Repeat the temperature cycle shown below 10 times then store parts at room temperature and humidity for 4 hours. <table><tr><td>Step</td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>Temperature</td><td>-45±3°C</td><td>Room Temp</td><td>125±2°C</td><td>Room Temp</td></tr><tr><td>Perild</td><td>30min</td><td>3min</td><td>30min</td><td>3min</td></tr></table>	Step	1	2	3	4	Temperature	-45±3°C	Room Temp	125±2°C	Room Temp	Perild	30min	3min	30min	3min	Meet specified value.
Step	1	2	3	4													
Temperature	-45±3°C	Room Temp	125±2°C	Room Temp													
Perild	30min	3min	30min	3min													
Temperature range	Operating temp range :-55°C to +125°C Storage temp range :-40°C to +85°C Storage life : 2year																

Surge life test

Item	Testing condition and method	Performance
Surge life	Charge a 1000pF capacitor up to DC 10kV and apply it to the sample. Do this 100 times at 10 seconds intervals.	$\Delta V_s/V_s \leq 30\%$ other items must meet the specified value.
Surge life	Apply a impulse current (1.2/50 μ s & 8/20 μ s of 1kA/0.5kA)for ± 5 times at 60s intervals,Thereafter, the characteristics of times Vs,IR and C shall be measured(EN61000-4-5).	No cracks or failures after applying current.
Surge life	Apply a impulse withstanding voltage capacity (10/700 μ s of 2kV/1kv 40 Ω) for ± 5 times at 60 seconds intervals,Thereafter, the characteristics of times Vs,IR and C shall be measured(ITU K21).	No cracks or failures after applying current

Soldering Parameters



- Recommended reflow methods: IR, vapor phase oven, hot air oven, N2 environment for lead-free.
- Recommended maximum paste thickness is 0.25mm
Devices can be cleaned using standard industry methods and solvents.
- Note 1:All temperature refer to topside of the package, measured on the package body surface.
- Note 2: If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Profile Feature Pb-Free Assembly

Average Ramp-Up Rate
(Ts max to T p) 3°C/second max.

Preheat

-Temperature Min(Ts min)	150°C
-Temperature Max(Ts max)	200°C
-Time(Ts min to Ts max)	60~180 seconds

Time maintained above:

-Temperature(TL)	217°C
-Time(tL)	60~150 seconds

Peak Temperature(Tp) 260°C

Ramp-Down Rate 6°C/second max.

Time 25°C to Peak Temperature 8 minutes max

Storage And Handling:

Storage conditions 0°C~ 35°C,30% ~60%R.H.

Devices may not meet specified performance if storage conditions are exceeded.

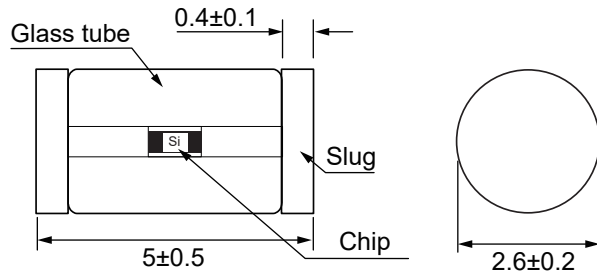
Hand Soldering:

Solder iron temperature: 0°C~ 350°C $\pm$ 5°C.

Heating time:3 seconds max.

Dimensions and Structure

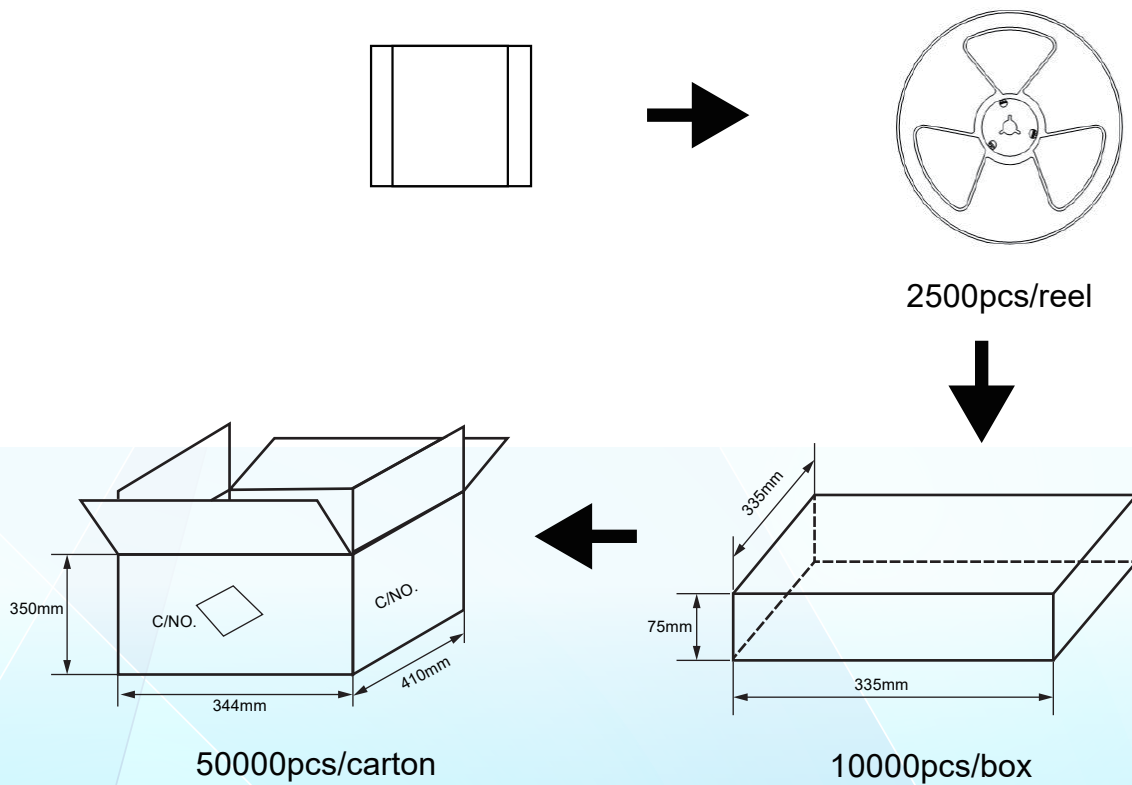
Unit : mm



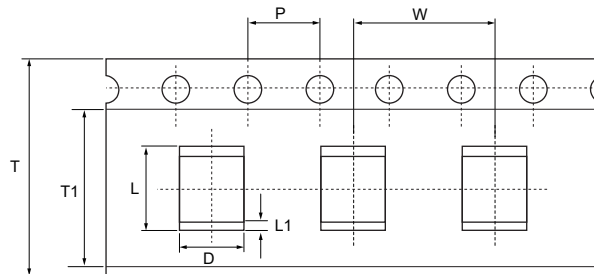
Item	Materials
Slug	90%OXY.DUMET Tail
Glass	Corning 8870 glass
Chip	Silicon

Packaging

No.	Quantity &Packaging Code
JGS5026	2500 pcs/reel



Tape And Reel Specifications (mm)



Item	W	T	L	P	D
Spec.(mm)	8.0±0.1	12.0±0.2	5.1±0.2	4.0±0.1	2.7±0.2

Part Number System

JG S 5026 - xxx ☐

Surge Rating
Blank=0.5kA, A=1kA

Sparkover voltage
300=300V

5026=Device Dimensions

S = Lead Configuration
A=Axial Leads,N=No Leads,S=Surface Mount,T=T-shaped Leads

JG = JDT Glass Gas Discharge Tube