

Gas Discharge Tube (GDT) Data Sheet

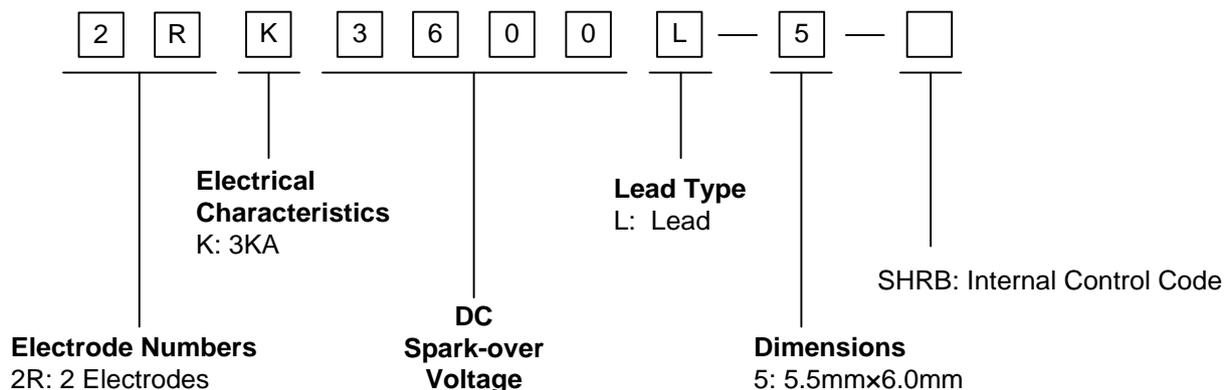
Features

- Provide ultra-fast response to surge voltage from slow-rising surge of 100V/s to rapid-rising surge of 1KV/ μ s.
- Stable breakdown voltage.
- High insulation resistance.
- Low capacitance (≤ 1.0 pF)
- High holdover voltage
- Large absorbing transient current capability.
- Micro-Gap Design
- Size: 5.5mm*6.0mm
- Storage and operational temperature: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Meets MSL level 1, per J-STD-020
- Safety certification: E327997

Applications

- Standard power supplies requisite by US UL1449.
- Highly reliable power supplies.
- Three or two phases industrial or civic machinery equipment power.
- Power supplies for IC or electronic circuits.

Part Number Code



Marking

B : BrightKing Logo
2RK3600-5 : Device Marking Code
XXXX : Internal Control Code

Dimensions

Symbol	Dimension (mm)	
	Spec.	Tolerance
D	5.5	+0.3, -0.5
T	6.0	+0.3, -0.5
T1	10.2	±0.5
S	7.5	±0.5
R	63°	±5°
d	0.6	±0.05
L	3.5	±0.5
L1	2.5	±0.3

Electrical Characteristics

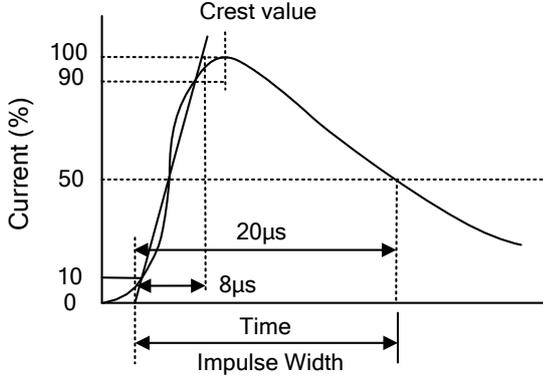
Part Number	Type ①	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage		Impulse Life		
		100V/s	100V/μs	1000V/μs	8/20μs 300 times	8/20μs 3 times	8/20μs 1 time
		(V)	(V)	(V)	(A)	(KA)	(KA)
2RK3600L-5	SHRB	3600±20%	4350	4500	100	3	5

AC Withstanding Voltage	Minimum Insulation Resistance		Maximum Capacitance	Arc Voltage @1A	Glow to Arc Transition Current	Glow Voltage	Device Marking Code
	Test Voltage	(GΩ)	1MHz				
	DC(V)		(pF)				
1800VAC, 3s	100	1.0	1.0	~45	~0.3	~240	2RK3600-5

Notes: ① Specific code by request.

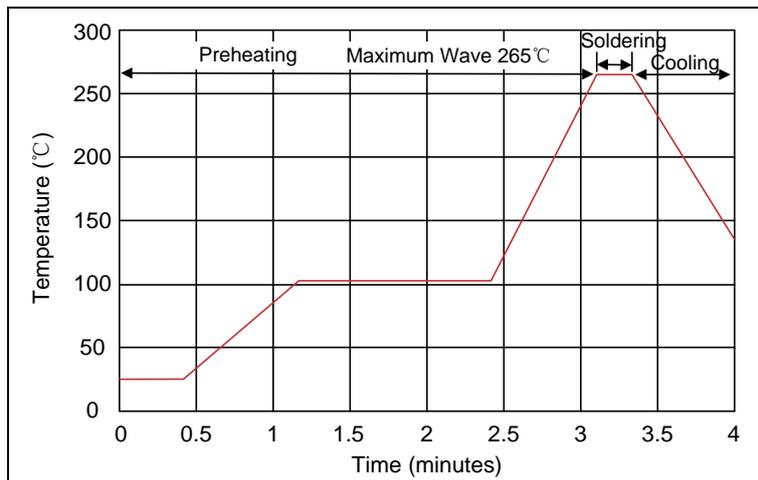
Electrical Ratings

Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt=100V/s$.	To meet the specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp $dv/dt=1000V/\mu s$.	

<p>Impulse Discharge Current</p>	<p>Maximum 8/20μs surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time, without causing the DC spark-over voltage to change more than 25% from its initial value.</p> 	
<p>Alternating Discharge Current</p>	<p>Rated RMS value of AC current at 50Hz, 1 sec. for 10 times with interval time 3 min. DC spark-over voltage shall not change more than $\pm 25\%$ from its initial value.</p>	
<p>Insulation Resistance</p>	<p>The resistance of gas tube shall be measured between two electrodes.</p>	
<p>Capacitance</p>	<p>The capacitance of gas tube shall be measured between two electrodes. Test frequency: 1MHz</p>	

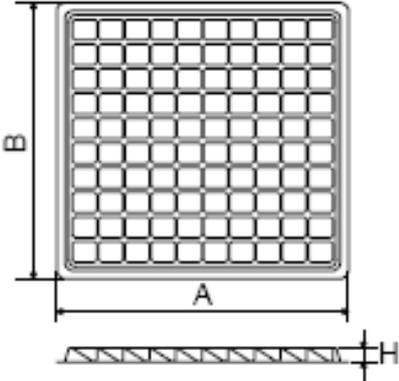
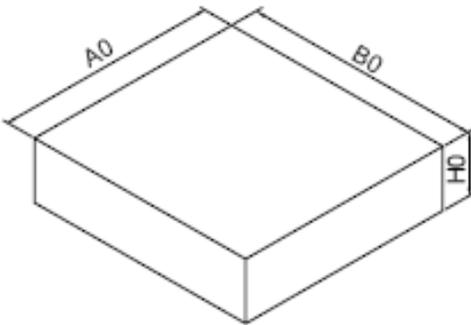
Recommended Soldering Conditions

Wave Soldering



Item	Conditions
Peak Temperature	265°C
Dipping Time	10 seconds
Soldering	1 time

Packaging

<p>Skin packing</p> 	<table border="1"> <thead> <tr> <th rowspan="2">Symbol</th> <th colspan="2">Dimension (mm)</th> </tr> <tr> <th>Spec.</th> <th>Tolerance</th> </tr> </thead> </table>		Symbol	Dimension (mm)		Spec.	Tolerance				
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<table border="1"> <tr> <td>A</td> <td>217.0</td> <td>±2.0</td> </tr> </table>	A	217.0	±2.0	<table border="1"> <tr> <td>B</td> <td>207.0</td> <td>±2.0</td> </tr> </table>		B	207.0	±2.0			
A	217.0	±2.0									
B	207.0	±2.0									
<table border="1"> <tr> <td>H</td> <td>10.3</td> <td>±0.5</td> </tr> </table>	H	10.3	±0.5	<p>Quantity: 100pcs</p>							
H	10.3	±0.5									
<p>Inner box</p> 	<table border="1"> <tr> <td>A0</td> <td>225.0</td> <td>±2.0</td> </tr> </table>	A0	225.0	±2.0	<table border="1"> <tr> <td>B0</td> <td>210.0</td> <td>±2.0</td> </tr> </table>	B0	210.0	±2.0			
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B0	210.0	±2.0									
H0	60.0	±2.0									
H0	60.0	±2.0									
<p>Quantity: 500pcs</p>											