

DATA SHEET

GAS DISCHARGE TUBES TELEPHONE INTERFACE

2R-6x7 series

RoHS compliant & free



Product specification— September 17, 2021 V.1



Gas Discharge Tube (GDT) Data Sheet

Features

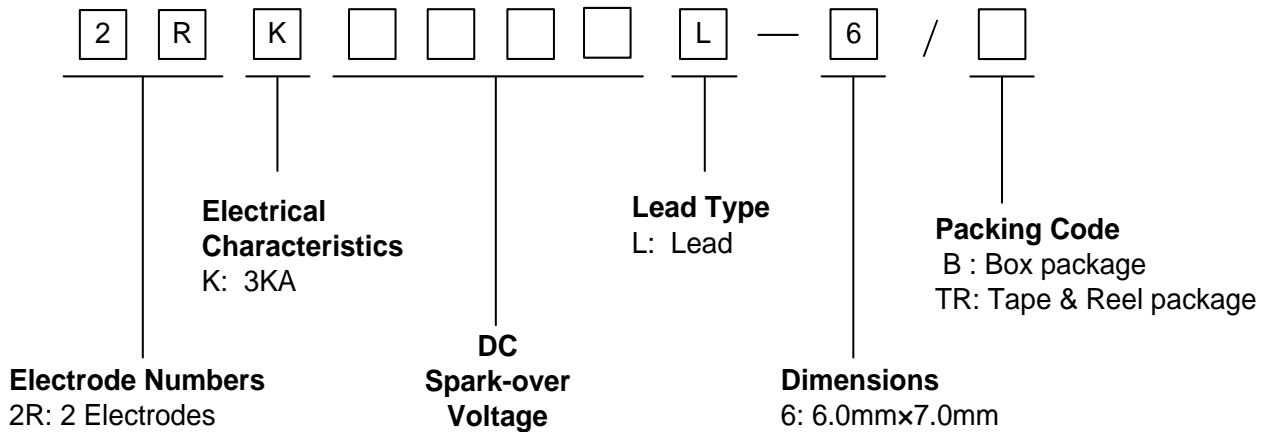
- Provide ultra-fast response to surge voltage from slow-rising surge of 100V/s to rapid-rising surge of 1KV/μs.
- Stable breakdown voltage.
- High insulation resistance.
- Low capacitance (≤0.5pF)
- High holdover voltage
- Large absorbing transient current capability.
- Micro-Gap Design
- Size: 6.0mm*7.0mm
- Storage and operating temperature: -40°C ~ +85°C
- Meets MSL level 1, per J-STD-020
- Safety certification: UL



Applications

- Repeaters, Modems.
- Telephone Interface, Line cards.
- Data communication equipment.
- Line test equipment

Part Number Code



Ordering Code	Lead type	Packing
2RKXXXL-6/B	Lead	Box(Tray)
2RKXXXL-6/TR	Lead	Tape & Reel

Marking

B : BrightKing Logo
 2RK1000-6 : Device Marking Code
 XXXX : Internal Control Code

Dimensions

L Type	Symbol	Dimension (mm)	
		Spec.	Tolerance
	D	6.0	+0.3, -0.5
	T	7.0	+0.3, -0.5
	d	0.8	±0.1
	L	30.0	Max.

Electrical Characteristics

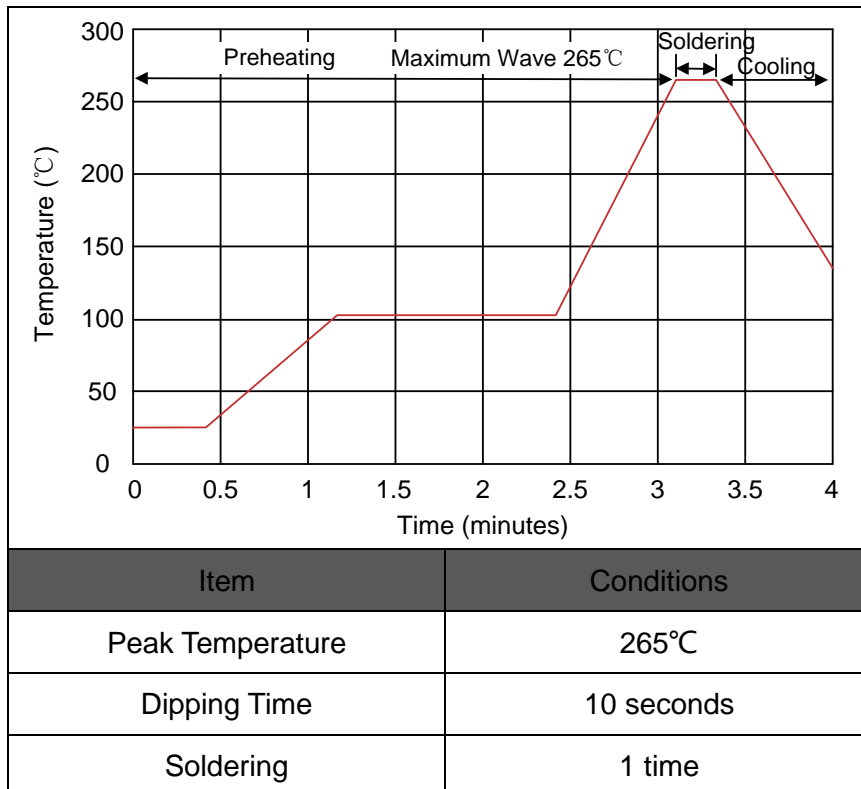
Part Number	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Nominal Impulse Discharge Current	Impulse Life	Minimum Insulation Resistance		Maximum Capacitance	AC Withstanding Voltage	Device Marking Code
	100V/s	1000V/μs	8/20μs 10times	8/20μs 100A	Test Voltage	(GΩ)	1MHz		
	(V)	(V)	(KA)	(times)	DC(V)		(pF)		
2RK1000L-6	1000±20%	2000	3.0	300	500	1.0	0.5	-	2RK1000-6
2RK1200L-6	1200±20%	2300	3.0	300	500	1.0	0.5	-	2RK1200-6
2RK1400L-6	1400±20%	2500	3.0	300	500	1.0	0.5	-	2RK1400-6
2RK1500L-6	1500±20%	2600	3.0	300	500	1.0	0.5	-	2RK1500-6
2RK1600L-6	1600±20%	2700	3.0	300	500	1.0	0.5	-	2RK1600-6
2RK2000L-6	2000±20%	3000	3.0	300	500	1.0	0.5	-	2RK2000-6
2RK2500L-6	2500±20%	3600	3.0	300	1000	1.0	0.5	AC1250V,1min	2RK2500-6
2RK2700L-6	2700±20%	3800	3.0	300	1000	1.0	0.5	AC1250V,1min	2RK2700-6
2RK3000L-6	3000±20%	4200	3.0	300	1000	1.0	0.5	AC1500V,1min	2RK3000-6
2RK3500L-6	3500±20%	4600	3.0	300	1000	1.0	0.5	AC1800V,1min	2RK3500-6
2RK3600L-6	3600±20%	4700	3.0	300	1000	1.0	0.5	AC1800V,1min	2RK3600-6

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 $dv/dt=1000V/\mu s$.	
Impulse Discharge Current	Maximum $8/20\mu s$ surge current that can be applied between the two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time. <div style="text-align: center;"> <p>The graph shows a current pulse starting at 0% at time 0. It rises to a peak (Crest value) of 100% at 8 microseconds. The current then decays. A horizontal line is drawn at 50% current, and a vertical line is dropped from the point where the curve crosses this line to the x-axis, marking the end of the 20 microsecond interval. The x-axis is labeled 'Time' and 'Impulse Width'.</p> </div>	
Insulation Resistance	The resistance of gas tube shall be measured between the two electrodes.	
Capacitance	The capacitance of gas tube shall be measured between two electrodes. Test frequency: 1MHz	

Recommended Soldering Conditions

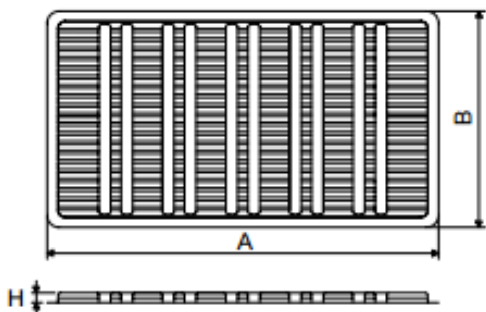
Wave Soldering



Packaging

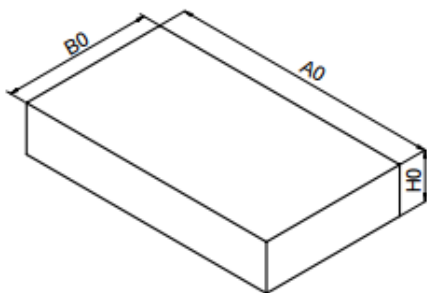
Axial Packing (Box)

Skin packing



Symbol	Dimension (mm)	
	Spec.	Tolerance
A	267.0	±2.0
B	146.0	±2.0
H	7.2	±1.0
Quantity: 100pcs		

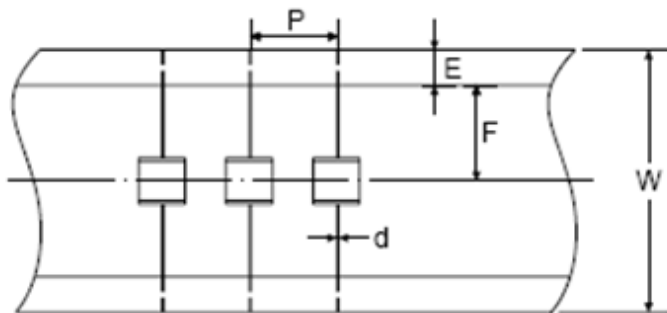
Inner box



A0	272.0	±2.0
B0	152.0	±2.0
H0	42.0	±2.0
Quantity: 500pcs		

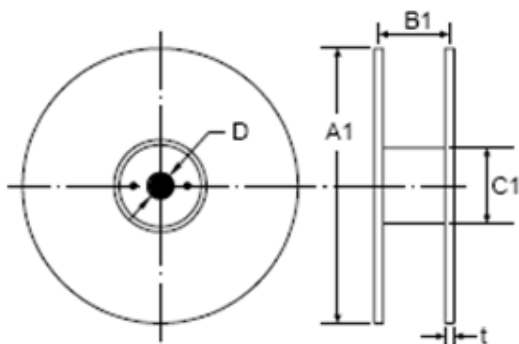
Axial Packing (Tape & Reel)

Tape



Symbol	Dimension (mm)	
	Spec.	Tolerance
P	10.0	±0.5
W	65.0	±1.0
E	6.0	±0.5
F	26.5	±0.5
d	0.8	±0.1

Reel



A1	330.0	±2.0
B1	70.0	±2.0
C1	82.0	±2.0
D	25.0	±0.5
t	2.0	±0.2
Quantity: 1000pcs		