



Switching Spark Gap

2RK-8 Series

Switching Spark Gap - 2RK-8 Series

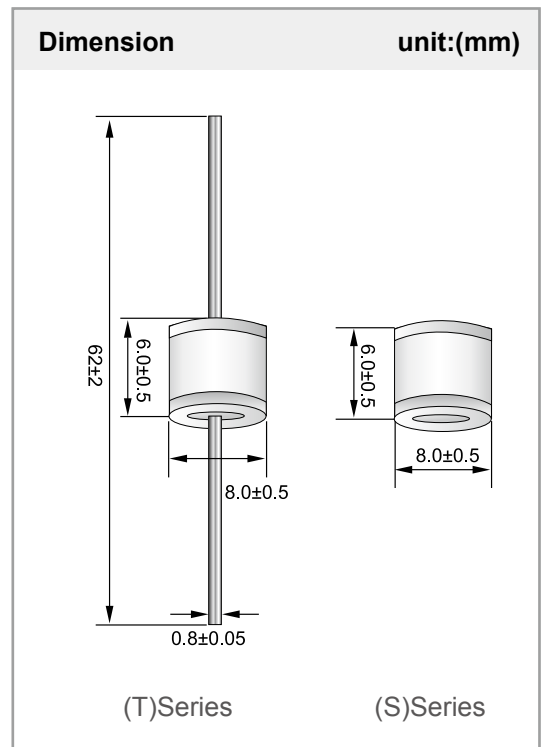
The 2RK-8 series is a two-terminal, bi-directional, voltage triggered switch, specifically for ignition circuits used in high pressure HID lighting. The gas plasma trigger technology offers very fast switch speeds with improved di/dt values compared to similar function silicon based devices. Switching voltages are fixed depending on the part number selected.

Features

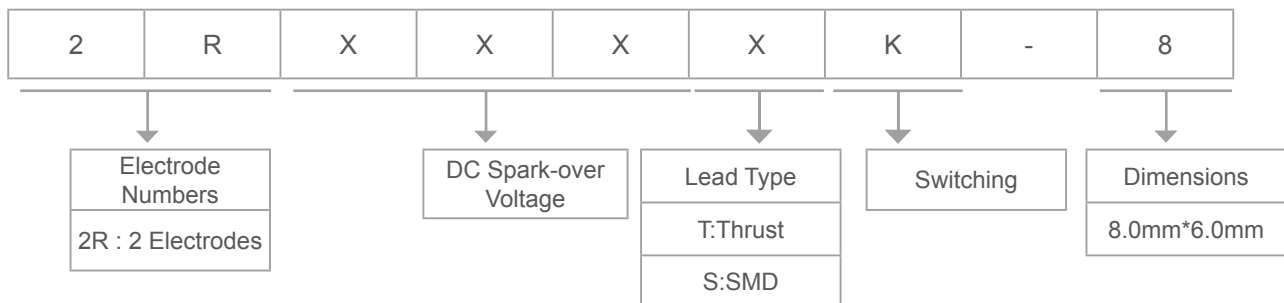
- Extremely long life time
- Non-Radioactive
- RoHS Compliant
- Fast breakdown-time
- Very high switch speed when switch voltage achieved, High di/dt allows for optimum performance of ignition transformers.
- Long service life

Recommended Applications

- HID Xenon discharge lamps ignite
- Gas stoves
- Detonating devices(EBW)
- Transient Power
- Other electronic ignition circuit



Part Number Code



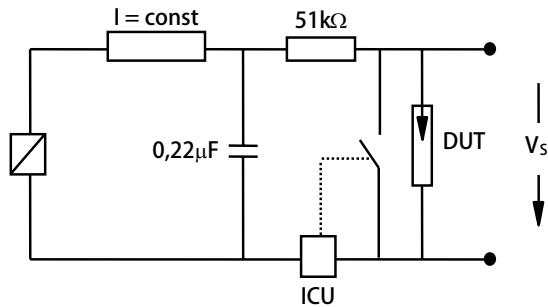
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Electrical Characteristics

Part Number		DC Spark-over Voltage	200000 times for the first static breakdown voltage in the dark(v)	Number of onoff(ten thousand	Switching frequency	Insulation resistance at 100v DC	Capacitance	Breakdown time
DIP	SMD	(V)	(V)	(times)	(HZ)	(Ω)	(PF)	(NS)
2R150TK-8	2R150SK-8	150±15%	<200	200000	200	≥10 ⁹	<1.5	50
2R230TK-8	2R230SK-8	230±15%	<270	400000	160	≥10 ⁹	<1.5	50
2R300TK-8	2R300SK-8	300±15%	<355	400000	140	≥10 ⁹	<1.5	50
2R320TK-8	2R320SK-8	320±15%	<380	400000	150	≥10 ⁹	<1.5	50
2R350TK-8	2R350SK-8	350±15%	<415	400000	150	≥10 ⁹	<1.5	50
2R370TK-8	2R370SK-8	370±15%	<440	400000	140	≥10 ⁹	<1.5	50
2R400TK-8	2R400SK-8	400±15%	<475	400000	130	≥10 ⁹	<1.5	50
2R470TK-8	2R470SK-8	470±15%	<570	400000	180	≥10 ⁹	<1.5	50
2R600TK-8	2R600SK-8	600±15%	<720	400000	210	≥10 ⁹	<1.5	50
2R730TK-8	2R730SK-8	730±15%	<900	400000	130	≥10 ⁹	<1.5	50
2R800TK-8	2R800SK-8	800±15%	<1000	400000	100	≥10 ⁹	<1.5	50

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Fig. 1: QC- test circuit (100% outgoing inspection)



DUT device under test
 ICU ignition control unit (sensitivity 10 .. 30μA)
 Discharge current 10 – 20 mA

Fig. 2: QC- test circuit (sampling inspection at 25 ° C)

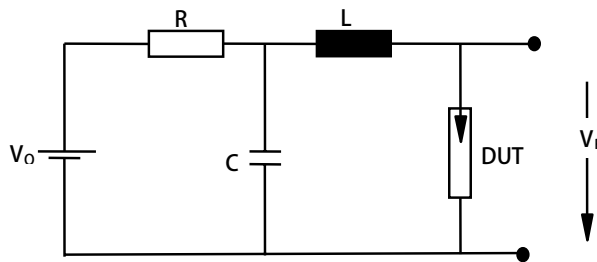


Fig. 1-1: Explanation of measurands

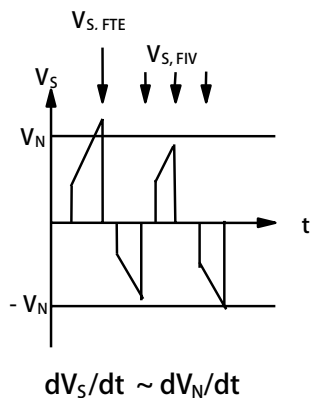
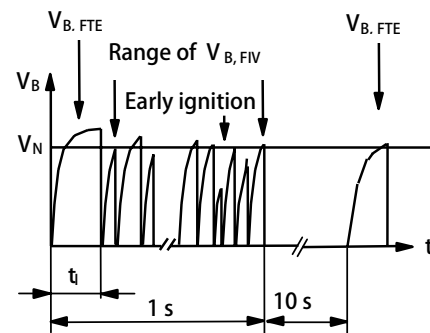


Fig. 2-2: Explanation of measurands



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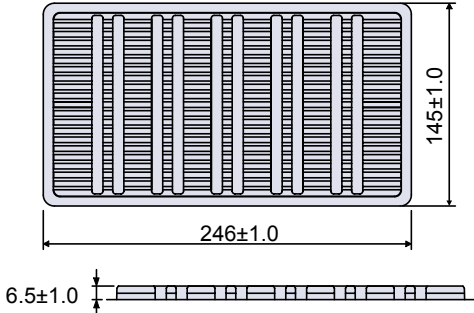
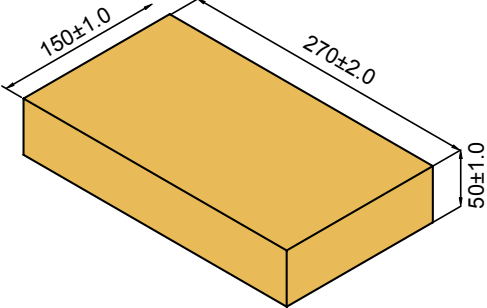
Warehouse Storage Condition

Item	Test Condition / Description	Requirement	
DC Breakdown Voltage	The voltage measured at a rise time of 100v/s.	To meet the specified value	
Maximum Impulse Breakdown Voltage	The maximum breakdown voltage at rise times of 100v/us and 1000v/us.		
Maximum Impulse Discharge Current	The maximum current applying a waveform of 8/20us that can be applied across the terminals of the gas tube without causing the gas tube to change more than $\pm 25\%$ from its initial measured DC breakdown voltage. Dwell time between pulses is 3 minutes.		
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 sec. 10 times. Intervals: 3min. DC breakdown voltage may not change more than $\pm 25\%$ from its initial measured DC breakdown voltage. $IR > 10^8$ ohms (-20%, +30% for 70 – 90V).		
Impulse Life	The minimum number of impulses of a specified waveform and peak current which a gas tube will conduct without causing the gas tube to change more than $\pm 25\%$ from its initial measured DC breakdown voltage. Dwell time between pulses is 1-2 minutes.		
DC Holdover Voltage	The maximum DC voltage across the two terminals of the gas tube under which it may be expected to return to the high impedance state after the gas tube breakdown.		
Insulation Resistance	The resistance of the gas tube shall be measured each terminal to each other terminal.		
	DC Breakdown Voltage (V)		DC Measuring Voltage (V)
	70		25
	90-150		50
	230-350	100	
	470-600	250	
Capacitance	The capacitance of a gas tube shall be measured each terminal to each other terminal. Test frequency: 1MHz In measurements involving 3-electrode gas tubes, the terminal not being tested shall be connected to a ground plane.		

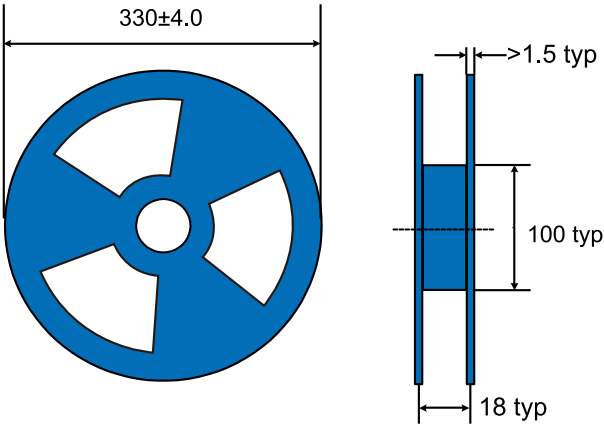
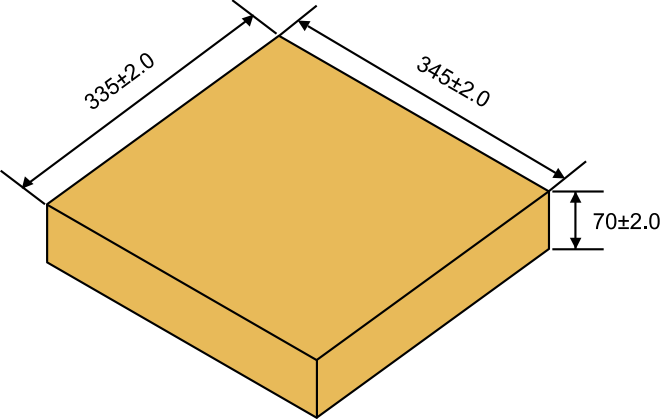
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Packaging Taping

Axial Packing (Bulk)

Skin packing (264×145×7mm)	Inner Box (270×150×50mm)
	
100 PCS/ Plastic Tray	500 PCS/ Box

SMD Packing (Tape & Reel)

Reel packing (330×330×18mm)	Inner Box (335×345×70mm)
	
900 PCS/ Reel	2700 PCS/ Box

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