

DATA SHEET

GAS DISCHARGE TUBES TELEPHONE INTERFACE

2R-8x6(S) series

RoHS compliant & free



Product specification— February 02, 2021 V.1



Gas Discharge Tube (GDT) Data Sheet

Features

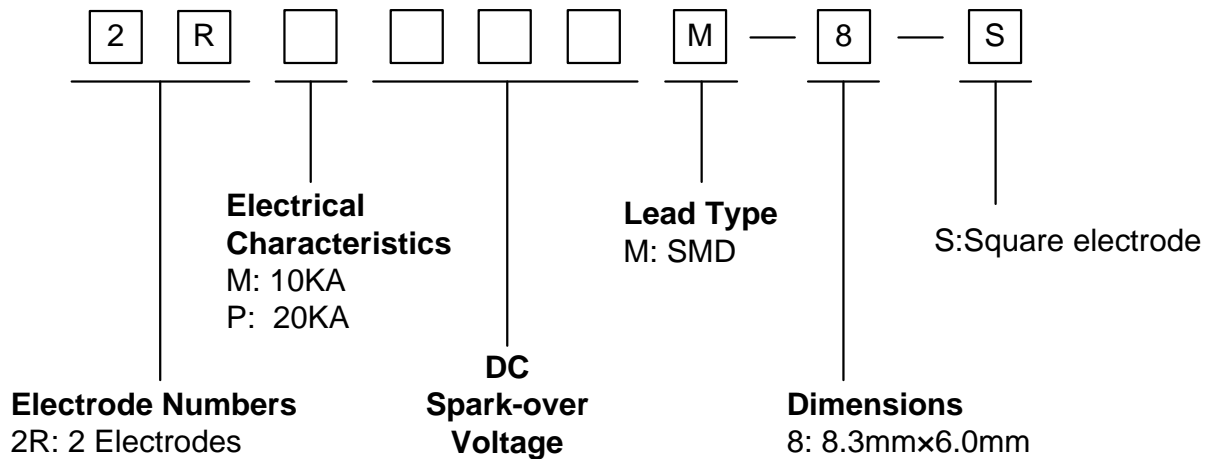
- Provide ultra-fast response to surge voltage from slow-rising surge of 100V/s to rapid-rising surge of 1KV/μs
- Stable breakdown voltage
- High insulation resistance
- Low capacitance (≤1.5pF)
- High holdover voltage
- Large absorbing transient current capability
- Micro-Gap Design
- Size: 8.3mm*6.0mm
- 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



Marking

- B** : BrightKing Logo
- 2RP090-8 : Device Marking Code
- XXXX : Internal Control Code

Dimensions

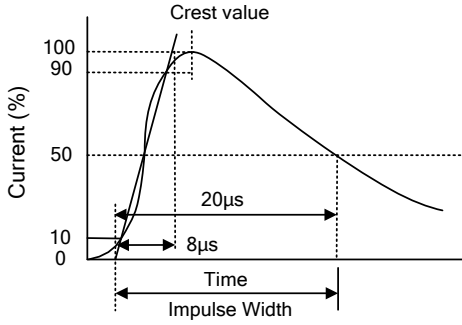
M Type

| Symbol | Dimension (mm) | |
|--------|----------------|-----------|
| | Spec. | Tolerance |
| A | 8.0 | ±0.20 |
| B | 0.5 | ±0.10 |
| D | 8.3 | ±0.20 |
| T | 6.0 | ±0.25 |
| S | 9.0 | ±0.40 |

Electrical Characteristics

| Part Number | DC Spark-over Voltage | Maximum Impulse Spark-over Voltage | Nominal Impulse Discharge Current | Single Impulse Discharge Current | Alternating Discharge Current | Impulse Life | Minimum Insulation Resistance | | Maximum Capacitance | Device Marking Code |
|--------------|-----------------------|------------------------------------|-----------------------------------|----------------------------------|-------------------------------|--------------|-------------------------------|------|---------------------|---------------------|
| | 100V/s | 1000V/μs | 8/20μs 10times | 10/350μs | 50Hz, 1sec | 10/1000 μs | Test Voltag | (GΩ) | 1MHz | |
| | (V) | (V) | (KA) | (KA) | (A) | (times) | DC(V) | | (pF) | |
| 2RM075M-8-S | 75±20% | 600 | 10 | 2.5 | 10 | 500 | 25 | 1.0 | 1.5 | 2RM075-8 |
| 2RM090M-8-S | 90±20% | 600 | 10 | 2.5 | 10 | 500 | 50 | 1.0 | 1.5 | 2RM090-8 |
| 2RM150M-8-S | 150±20% | 600 | 10 | 2.5 | 10 | 500 | 100 | 1.0 | 1.5 | 2RM150-8 |
| 2RM230M-8-S | 230±20% | 700 | 10 | 2.5 | 10 | 500 | 100 | 1.0 | 1.5 | 2RM230-8 |
| 2RM250M-8-S | 250±20% | 700 | 10 | 2.5 | 10 | 500 | 100 | 1.0 | 1.5 | 2RM250-8 |
| 2RM300M-8-S | 300±20% | 900 | 10 | 2.5 | 10 | 500 | 100 | 1.0 | 1.5 | 2RM300-8 |
| 2RM350M-8-S | 350±20% | 900 | 10 | 2.5 | 10 | 500 | 100 | 1.0 | 1.5 | 2RM350-8 |
| 2RM420M-8-S | 420±20% | 1000 | 10 | 2.5 | 10 | 500 | 100 | 1.0 | 1.5 | 2RM420-8 |
| 2RM470M-8-S | 470±20% | 1000 | 10 | 2.5 | 10 | 500 | 250 | 1.0 | 1.5 | 2RM470-8 |
| 2RM600M-8-S | 600±20% | 1200 | 10 | 2.5 | 10 | 500 | 250 | 1.0 | 1.5 | 2RM600-8 |
| 2RM800M-8-S | 800±20% | 1500 | 10 | 2.5 | 10 | 500 | 250 | 1.0 | 1.5 | 2RM800-8 |
| 2RM1000M-8-S | 1000±20% | 1700 | 10 | 2.5 | 10 | 500 | 250 | 1.0 | 1.5 | 2RM1000-8 |
| 2RM1500M-8-S | 1500±20% | 2300 | 10 | 2.5 | 5 | 500 | 500 | 1.0 | 1.5 | 2RM1500-8 |
| 2RP075M-8-S | 75±20% | 600 | 20 | 5.0 | 20 | 500 | 25 | 1.0 | 1.5 | 2RP075-8 |
| 2RP090M-8-S | 90±20% | 600 | 20 | 5.0 | 20 | 500 | 50 | 1.0 | 1.5 | 2RP090-8 |
| 2RP150M-8-S | 150±20% | 600 | 20 | 5.0 | 20 | 500 | 100 | 1.0 | 1.5 | 2RP150-8 |
| 2RP230M-8-S | 230±20% | 700 | 20 | 5.0 | 20 | 500 | 100 | 1.0 | 1.5 | 2RP230-8 |
| 2RP250M-8-S | 250±20% | 700 | 20 | 5.0 | 20 | 500 | 100 | 1.0 | 1.5 | 2RP250-8 |
| 2RP300M-8-S | 300±20% | 900 | 20 | 5.0 | 20 | 500 | 100 | 1.0 | 1.5 | 2RP300-8 |
| 2RP350M-8-S | 350±20% | 900 | 20 | 5.0 | 20 | 500 | 100 | 1.0 | 1.5 | 2RP350-8 |
| 2RP420M-8-S | 420±20% | 1000 | 20 | 5.0 | 20 | 500 | 100 | 1.0 | 1.5 | 2RP420-8 |
| 2RP470M-8-S | 470±20% | 1000 | 20 | 5.0 | 20 | 500 | 250 | 1.0 | 1.5 | 2RP470-8 |
| 2RP600M-8-S | 600±20% | 1200 | 20 | 5.0 | 20 | 500 | 250 | 1.0 | 1.5 | 2RP600-8 |
| 2RP800M-8-S | 800±20% | 1500 | 20 | 5.0 | 20 | 500 | 250 | 1.0 | 1.5 | 2RP800-8 |
| 2RP1000M-8-S | 1000±20% | 1700 | 20 | 5.0 | 20 | 500 | 250 | 1.0 | 1.5 | 2RP1000-8 |

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 | <p>Maximum 8/20μs surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time.</p>  | |
| Alternating Discharge Current | Rated RMS value of AC current at 50Hz, 1 sec. for 10 times with interval time 3 min. | |
| Insulation Resistance | The resistance of gas tube shall be measured between two electrodes. | |
| Capacitance | The capacitance of gas tube shall be measured between two electrodes. Test frequency: 1MHz | |

Recommended Soldering Conditions

