Innovative Service Around the Globe YAGEO

DATA SHEET

GAS DISCHARGE TUBES
TELEPHONE INTERFACE

2R-8x6-SHT series

RoHS compliant & free



Product specification– February 09, 2026 V.1

Gas Discharge Tube (GDT) Data Sheet

Features

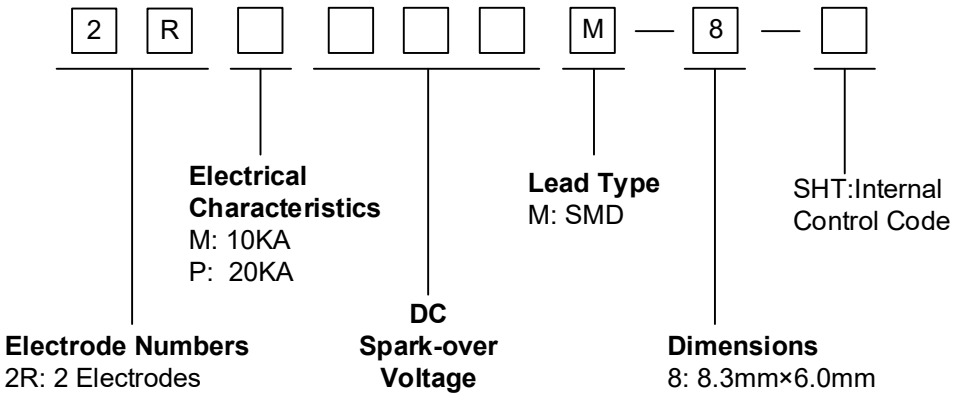


- Provide ultra-fast response to surge voltage from slow-rising surge of 100V/s to rapid-rising surge of 1KV/μs
- Stable breakdown voltage
- High insulation resistance
- Low capacitance (≤1.5pF)
- High holdover voltage
- Large absorbing transient current capability
- Micro-Gap Design
- Size: 8.3mm*6.0mm
- Operating temperature: -40℃ ~ +125℃
- 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

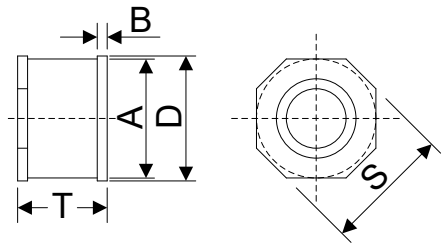


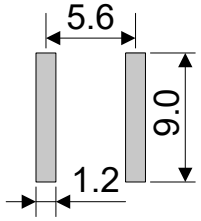
Marking

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

Dimensions

M Type





Recommended Pad Size

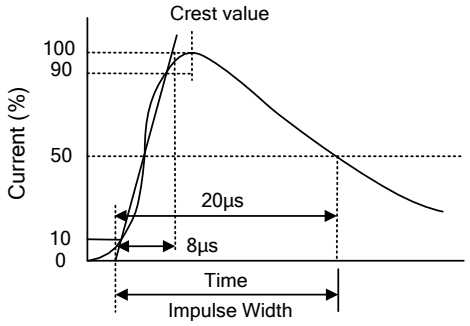
Symbol	Dimension (mm)	
	Spec.	Tolerance
A	8.0	±0.20
B	0.5	±0.10
D	8.3	±0.20
T	6.0	±0.25
S	9.0	±0.40

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	10/1000μs	Test Voltag	(GΩ)	1MHz	
	(V)	(V)	(KA)	(KA)	(A)	(times)	DC(V)		(pF)	
2RM075M-8-SHT	75±20%	600	10	2.5	10	500	25	1	1.5	2RM075-8
2RM150M-8-SHT	150±20%	600	10	2.5	10	500	100	1	1.5	2RM150-8
2RM230M-8-SHT	230±20%	700	10	2.5	10	500	100	1	1.5	2RM230-8
2RM250M-8-SHT	250±20%	700	10	2.5	10	500	100	1	1.5	2RM250-8
2RM300M-8-SHT	300±20%	900	10	2.5	10	500	100	1	1.5	2RM300-8
2RM350M-8-SHT	350±20%	900	10	2.5	10	500	100	1	1.5	2RM350-8
2RM420M-8-SHT	420±20%	1000	10	2.5	10	500	100	1	1.5	2RM420-8
2RM470M-8-SHT	470±20%	1000	10	2.5	10	500	250	1	1.5	2RM470-8
2RM600M-8-SHT	600±20%	1200	10	2.5	10	500	250	1	1.5	2RM600-8
2RM800M-8-SHT	800±20%	1500	10	2.5	10	500	250	1	1.5	2RM800-8
2RM1000M-8-SHT	1000±20%	1700	10	2.5	10	500	250	1	1.5	2RM1000-8
2RM1500M-8-SHT	1500±20%	2300	10	2.5	5	500	500	1	1.5	2RM1500-8
2RP075M-8-SHT	75±20%	600	20	5.0	20	500	25	1	1.5	2RP075-8
2RP150M-8-SHT	150±20%	600	20	5.0	20	500	100	1	1.5	2RP150-8
2RP230M-8-SHT	230±20%	700	20	5.0	20	500	100	1	1.5	2RP230-8
2RP250M-8-SHT	250±20%	700	20	5.0	20	500	100	1	1.5	2RP250-8
2RP300M-8-SHT	300±20%	900	20	5.0	20	500	100	1	1.5	2RP300-8
2RP350M-8-SHT	350±20%	900	20	5.0	20	500	100	1	1.5	2RP350-8
2RP420M-8-SHT	420±20%	1000	20	5.0	20	500	100	1	1.5	2RP420-8
2RP470M-8-SHT	470±20%	1000	20	5.0	20	500	250	1	1.5	2RP470-8
2RP600M-8-SHT	600±20%	1200	20	5.0	20	500	250	1	1.5	2RP600-8
2RP800M-8-SHT	800±20%	1500	20	5.0	20	500	250	1	1.5	2RP800-8
2RP1000M-8-SHT	1000±20%	1700	20	5.0	20	500	250	1	1.5	2RP1000-8

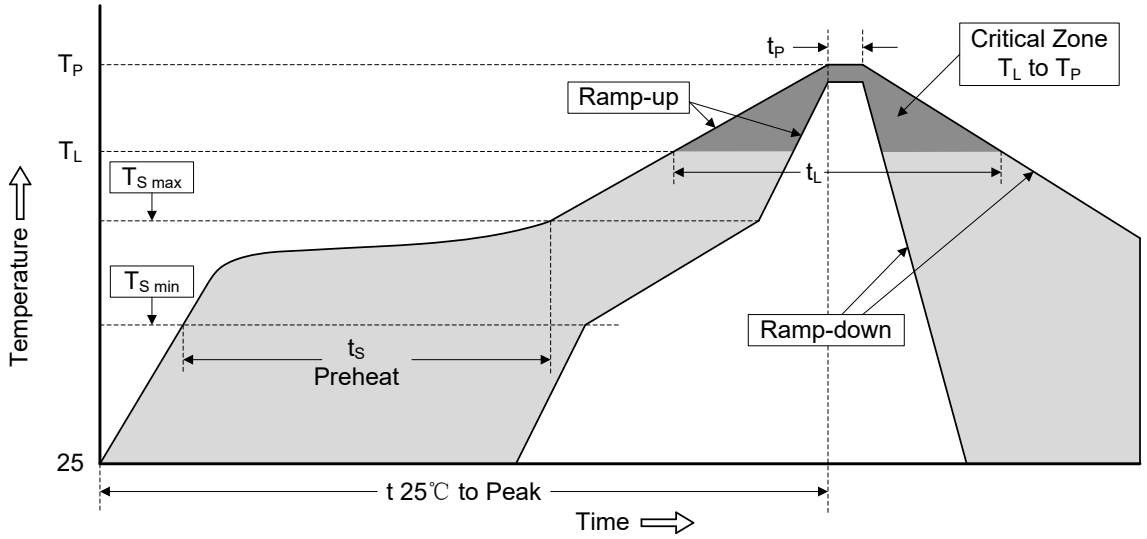
Electrical Ratings

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/μs.	
Impulse Discharge Current	Maximum 8/20μs surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time. 	
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

Reflow Soldering

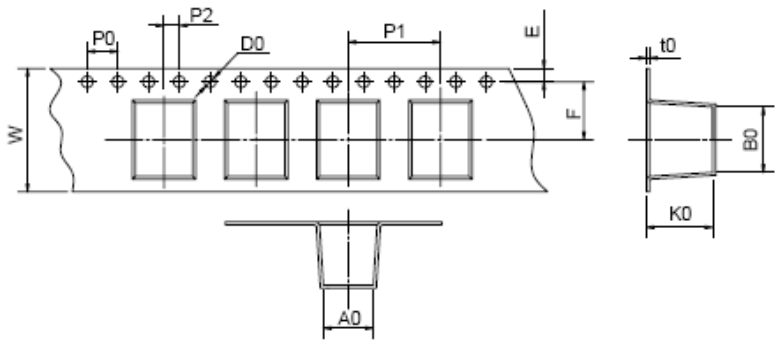


Recommended Conditions

Profile Feature	Pb-Free Assembly
Average ramp-up rate (T_L to T_P)	3℃/second max.
Preheat -Temperature Min ($T_{S\ min}$) -Temperature Max ($T_{S\ max}$) -Time (min to max) (ts)	 150℃ 200℃ 60-180 seconds
$T_{S\ max}$ to T_L -Ramp-up Rate	 3℃/second max.
Time maintained above: -Temperature (T_L) -Time (t_L)	 217℃ 60-150 seconds
Peak Temperature (T_P)	260℃
Time within 5℃ of actual Peak Temperature (t_P)	20-40 seconds
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.

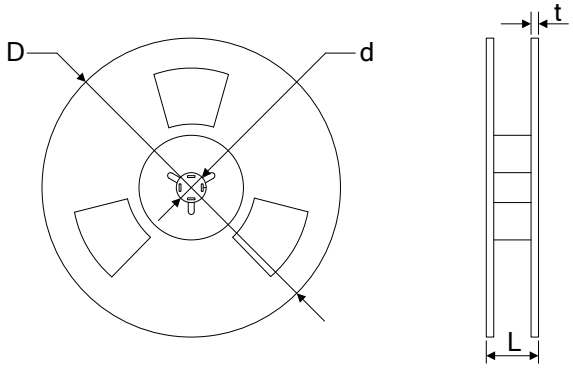
Packaging

Tape



Symbol	Dimension (mm)	
	Spec.	Tolerance
W	16.00	±0.20
P0	4.00	±0.10
P1	12.00	±0.20
P2	2.00	±0.10
D0	1.55	±0.05
E	1.75	±0.10
F	7.50	±0.10
A0	6.35	±0.10
K0	6.55	±0.10
B0	8.65	±0.10
t0	0.50	±0.10

Reel



D	330.00	±2.00
d	13.00	±0.50
L	20.00	±2.00
t	2.00	±0.20

Quantity: 600pcs

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