

DATA SHEET

GAS DISCHARGE TUBES TELEPHONE INTERFACE

2R-8x6 series

RoHS compliant & free



Product specification— February 02, 2021 V.1



Gas Discharge Tube (GDT) Data Sheet

Features

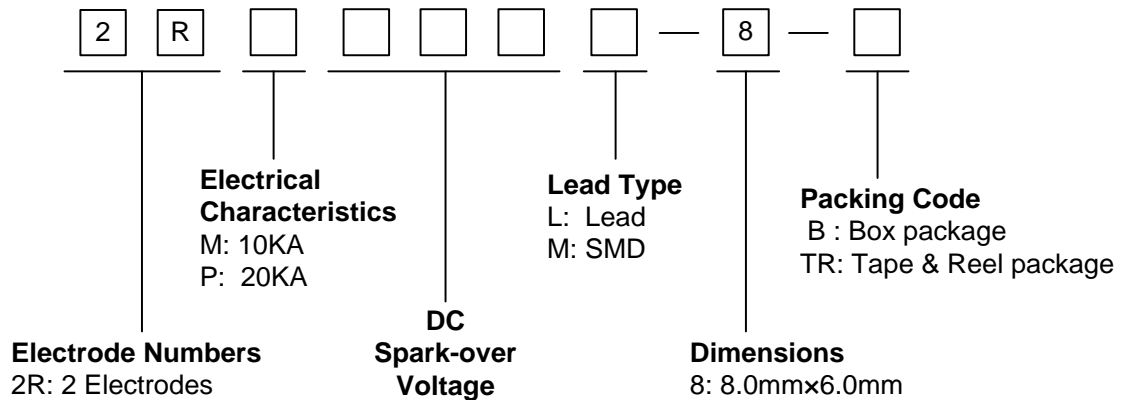
- Provide ultra-fast response to surge voltage from slow-rising surge of 100V/s to rapid-rising surge of 1KV/μs
- Stable breakdown voltage
- High insulation resistance
- Low capacitance (≤1.5pF)
- High holdover voltage
- Large absorbing transient current capability
- Micro-Gap Design
- Size: 8.0mm*6.0mm
- 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



Ordering Code for different package in 2RMxxxL-8 and 2RPxxxL-8 series

Box package: Add suffix “/B” at the end of the part number, such as 2RM075L-8/B or 2RP075L-8/B

Tape & Reel package: Add suffix “/TR” at the end of the part number, such as 2RM075L-8/TR or 2RP075L-8/TR

Marking

- B** : BrightKing Logo
- 2RM090-8 : Device Marking Code
- XXXX : Internal Control Code

Dimensions

L Type	Symbol	Dimension (mm)	
		Spec.	Tolerance
	D	8.0	+0.3, -0.5
	T	6.0	+0.3, -0.5
	d	0.8	±0.1
	L	30.0	Max.
M Type	D	8.0	+0.3, -0.5
		T	6.0
	B	0.5	±0.1

Recommended Pad Size

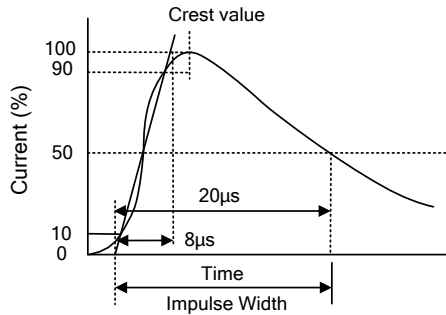
Electrical Characteristics

Part Number		DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Nominal Impulse Discharge Current	Alternating Discharge Current	Impulse Life	Minimum Insulation Resistance		Maximum Capacitance	Device Marking Code
		100V/s	1000V/μs	8/20μs 10times	50Hz, 1sec	10/1000μs 100A	Test Voltage	(GΩ)	1MHz	
		(V)	(V)	(KA)	(A)	(times)	DC(V)		(pF)	
2RM075L-8	2RM075M-8	75±20%	600	10	10	500	25	1.0	1.5	2RM075-8
2RM090L-8	2RM090M-8	90±20%	600	10	10	500	50	1.0	1.5	2RM090-8
2RM120L-8	2RM120M-8	120±20%	600	10	10	500	50	1.0	1.5	2RM120-8
2RM145L-8	2RM145M-8	145±20%	700	10	10	500	100	1.0	1.5	2RM145-8
2RM150L-8	2RM150M-8	150±20%	700	10	10	500	100	1.0	1.5	2RM150-8
2RM230L-8	2RM230M-8	230±20%	700	10	10	500	100	1.0	1.5	2RM230-8
2RM250L-8	2RM250M-8	250±20%	800	10	10	500	100	1.0	1.5	2RM250-8
2RM300L-8	2RM300M-8	300±20%	900	10	10	500	100	1.0	1.5	2RM300-8
2RM350L-8	2RM350M-8	350±20%	900	10	10	500	100	1.0	1.5	2RM350-8
2RM400L-8	2RM400M-8	400±20%	1000	10	10	500	100	1.0	1.5	2RM400-8
2RM470L-8	2RM470M-8	470±20%	1100	10	10	500	250	1.0	1.5	2RM470-8
2RM600L-8	2RM600M-8	600±20%	1300	10	10	500	250	1.0	1.5	2RM600-8
2RM800L-8	2RM800M-8	800±20%	1500	10	10	500	250	1.0	1.5	2RM800-8

Electrical Characteristics

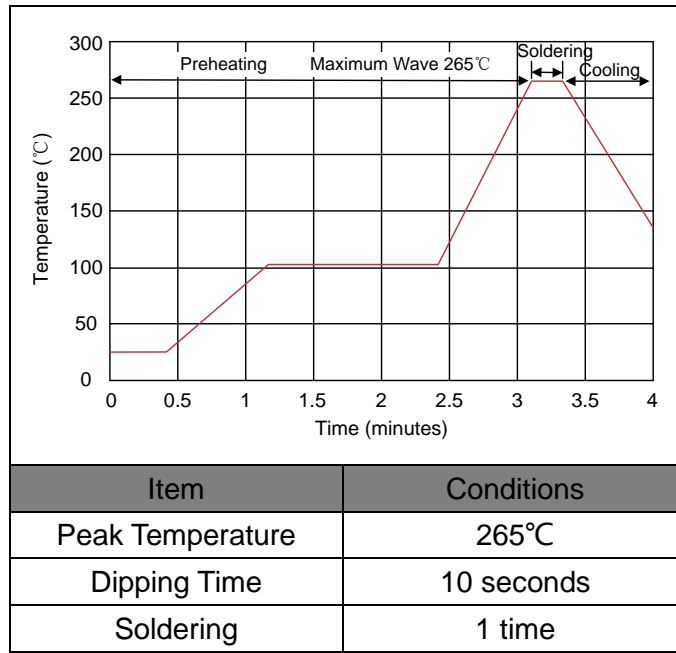
Part Number		DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Nominal Impulse Discharge Current	Alternating Discharge Current	Impulse Life	Minimum Insulation Resistance		Maximum Capacitance	Device Marking Code
		100V/s	1000V/ μ s	8/20 μ s 10times	50Hz, 1sec	10/1000 μ s 100A	Test Voltage	(G Ω)	1MHz	
		(V)	(V)	(KA)	(A)	(times)	DC(V)		(pF)	
2RP075L-8	2RP075M-8	75 \pm 20%	600	20	20	500	25	1.0	1.5	2RP075-8
2RP090L-8	2RP090M-8	90 \pm 20%	600	20	20	500	50	1.0	1.5	2RP090-8
2RP120L-8	2RP120M-8	120 \pm 20%	600	20	20	500	50	1.0	1.5	2RP120-8
2RP145L-8	2RP145M-8	145 \pm 20%	700	20	20	500	100	1.0	1.5	2RP145-8
2RP150L-8	2RP150M-8	150 \pm 20%	700	20	20	500	100	1.0	1.5	2RP150-8
2RP230L-8	2RP230M-8	230 \pm 20%	700	20	20	500	100	1.0	1.5	2RP230-8
2RP250L-8	2RP250M-8	250 \pm 20%	800	20	20	500	100	1.0	1.5	2RP250-8
2RP300L-8	2RP300M-8	300 \pm 20%	900	20	20	500	100	1.0	1.5	2RP300-8
2RP350L-8	2RP350M-8	350 \pm 20%	900	20	20	500	100	1.0	1.5	2RP350-8
2RP400L-8	2RP400M-8	400 \pm 20%	1000	20	20	500	100	1.0	1.5	2RP400-8
2RP470L-8	2RP470M-8	470 \pm 20%	1100	20	20	500	250	1.0	1.5	2RP470-8
2RP600L-8	2RP600M-8	600 \pm 20%	1300	20	20	500	250	1.0	1.5	2RP600-8
2RP800L-8	2RP800M-8	800 \pm 20%	1500	20	20	500	250	1.0	1.5	2RP800-8

Electrical Ratings

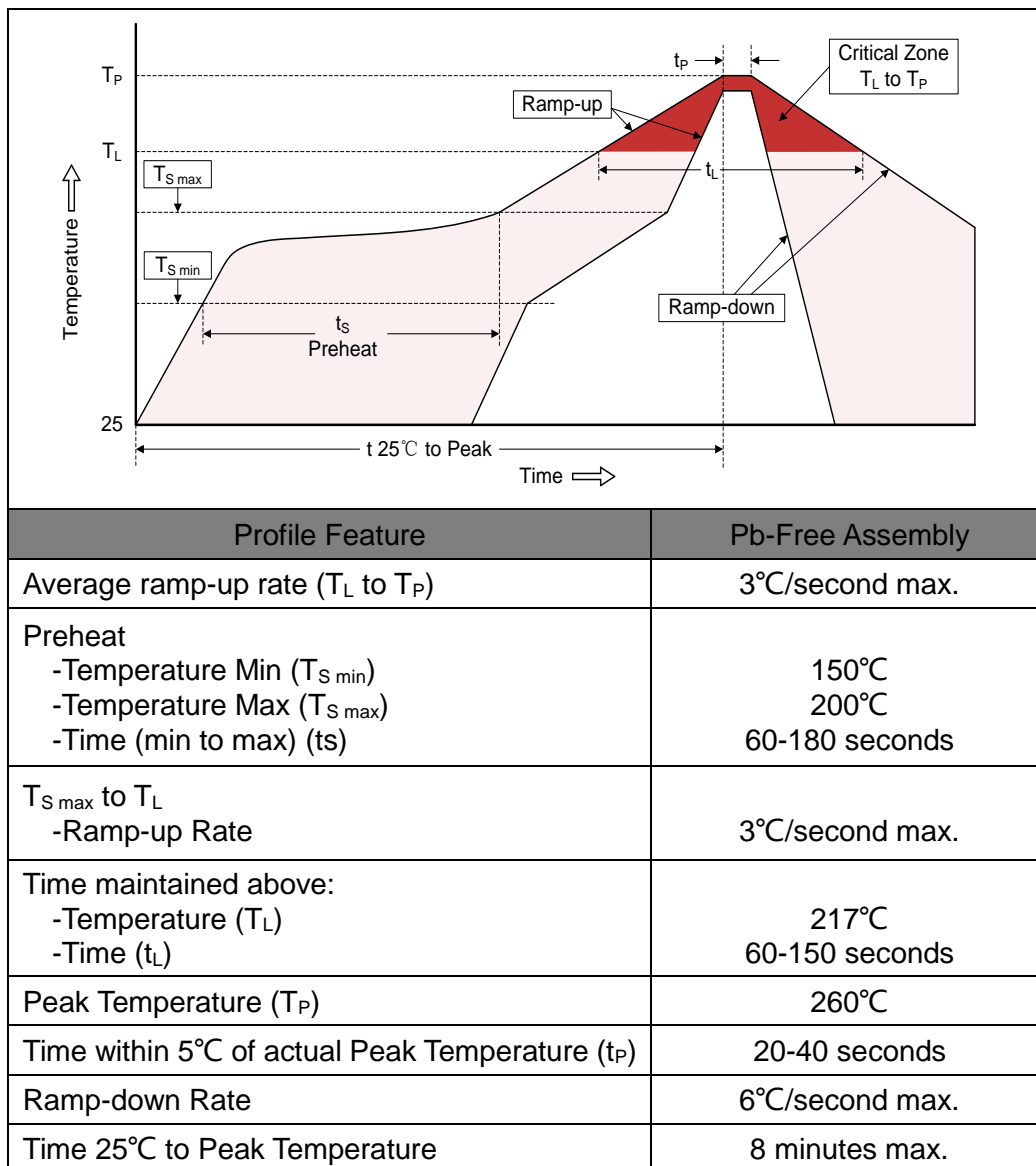
Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt=100V/s$.	To meet the specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp $dv/dt=1000V/\mu s$.	
Impulse Discharge Current	Maximum 8/20 μs 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

Wave Soldering

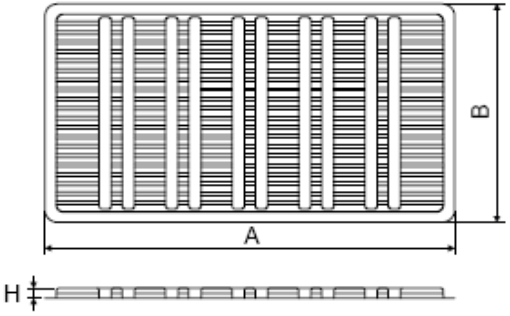


Reflow Soldering

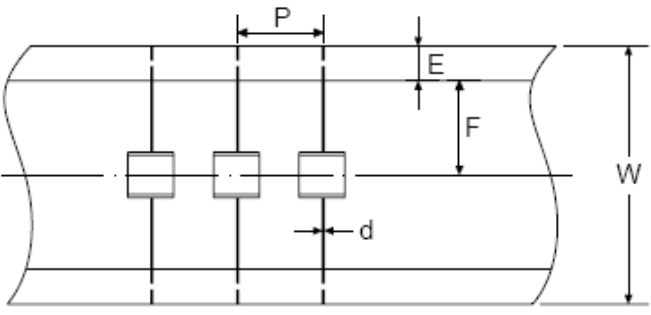


Packaging

Axial Packing (Box)

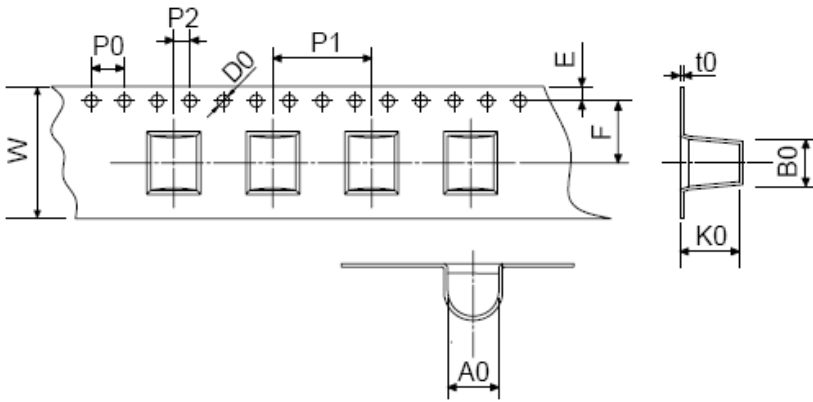
Skin packing	Dimension (mm)	
	Symbol	Spec. / Tolerance
	A	265.0 ±5.0
	B	146.0 ±5.0
	H	8.5 ±0.5
	Quantity: 100pcs	
Inner box	Dimension (mm)	
	Symbol	Spec. / Tolerance
	A0	270.0 ±2.0
	B0	150.0 ±2.0
H0	50.0 ±2.0	
Quantity: 500pcs		

Axial Packing (Tape & Reel)

Tape	Dimension (mm)	
	Symbol	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
	Quantity: 500pcs	
Reel	Dimension (mm)	
	Symbol	Spec. / Tolerance
	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: 500pcs		

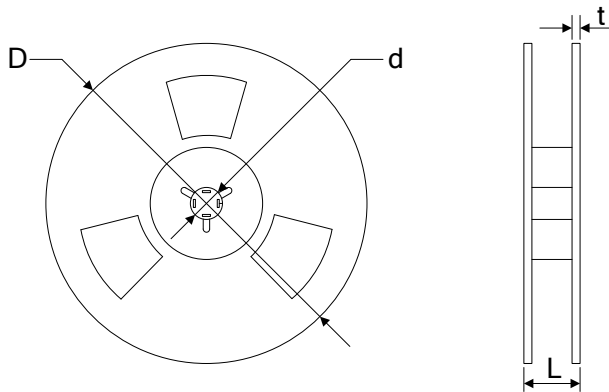
SMD Packing (Tape & Reel)

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	8.20	±0.10
K0	8.50	±0.10
B0	7.50	±0.10
t0	0.50	±0.10
D	330.00	±2.00
d	13.00	±0.50
L	20.00	±2.00
t	2.00	±0.20

Reel



Quantity: 500pcs

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Gas Discharge Tubes - GDTs / Gas Plasma Arrestors](#) category:

Click to view products by [Yageo](#) manufacturer:

Other Similar products are found below :

[PMT1023004](#) [PMT1025001](#) [RF3161-000](#) [PMT1035004](#) [PMT1040004](#) [PMT809006](#) [CG2250](#) [CG2800](#) [CG31.5L](#) [GT-SMD181240012-TR](#)
[WPGT-2N145B6L](#) [WPGT-2N230B6L](#) [WPGT-2N470B6L](#) [WPGT-2R470B6L](#) [WPGT-2RM230A6L](#) [WPGT-2RM350A6L](#) [WPGT-](#)
[2RM70A6L](#) [WPGT-2RM90A6L](#) [WPGT-2S145](#) [WPGT-2S350](#) [WPGT-2S470](#) [WPGT-3R350CF](#) [WPGT-3R350G1](#) [WPGT-3R90G1](#) [WPGT-](#)
[3R75G1](#) [WPGT-3R470G1](#) [WPGT-3R250C](#) [WPGT-3R230G1](#) [WPGT-2S230](#) [WPGT-2RM470A6L](#) [WPGT-2RM145A6L](#) [WPGT-2R3000B8L](#)
[WPGT-2R2700B8L](#) [WPGT-2R1000B8L](#) [WPGT-2N90B6L](#) [WPGT-2N70B6L](#) [WPGT-2N350B6L](#) [WPGT-2N230B6L1](#) [CG90](#) [CG2230](#)
[CG2145](#) [CG21000](#) [GT-SMD181215012-TR](#) [T61-C350X](#) [9071.99.0547 \(73_Z-0-0-547\)](#) [B88069X6940B152](#) [9071.99.0052\(73_Z-0-0-52\)](#)
[B88069X1973T902](#) [C50-0-255](#) [A9L40271](#)