

DATA SHEET

GAS DISCHARGE TUBES TELEPHONE INTERFACE

2R-4-HT series

RoHS compliant & free



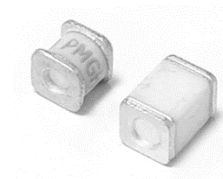
Product specification— February 09, 2026 V.1



Gas Discharge Tube (GDT) Data Sheet

Features

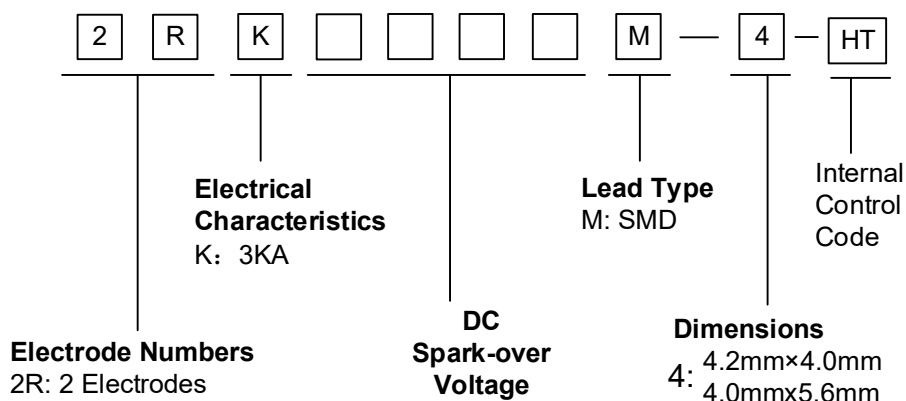
- Provide ultra-fast response to surge voltage from slow-rising surge of 100V/s to rapid-rising surge of 1KV/μs
- Stable breakdown voltage
- High insulation resistance
- Low capacitance ($\leq 1\text{pF}$)
- High holdover voltage
- Large absorbing transient current capability
- Micro-Gap Design
- Size: 4.2mm*4.0mm
- Operating temperature: $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- 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

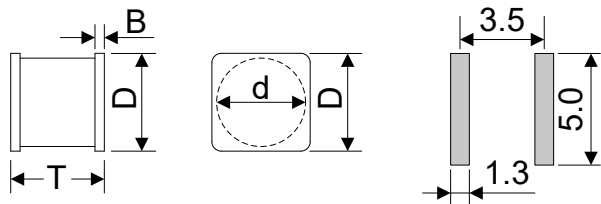


Marking

090 : Device Marking Code
XXXX : Internal Control Code

Dimensions

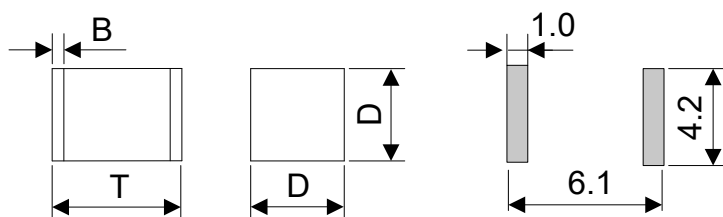
Size: 4.2x4.0mm series



Recommended Pad Size

Symbol	Dimension (mm)	
	Spec.	Tolerance
D	4.2	±0.3
T	4.0	±0.3
B	0.4	±0.2
d	3.9	±0.2

Size: 4.0x5.6mm series



Recommended Pad Size

Symbol	Dimension (mm)	
	Spec.	Tolerance
D	4.0	±0.3
T	5.6	±0.3
B	0.5	±0.2

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)	(GΩ)	(pF)	
2RK075M-4-HT	75±20%	800	3	3	300	25	1	1.0	075
2RK090M-4-HT	90±20%	800	3	3	300	50	1	1.0	090
2RK145M-4-HT	145±20%	800	3	3	300	100	1	1.0	145
2RK230M-4-HT	230±20%	700	3	3	300	100	1	1.0	230
2RK250M-4-HT	250±20%	700	3	3	300	100	1	1.0	250
2RK300M-4-HT	300±20%	800	3	3	300	100	1	1.0	300
2RK350M-4-HT	350±20%	850	3	3	300	100	1	1.0	350
2RK400M-4-HT	400±20%	900	3	3	300	100	1	1.0	400
2RK470M-4-HT	470±20%	1000	3	3	300	250	1	1.0	470
2RK600M-4-HT	600±20%	1200	3	3	300	250	1	1.0	600
2RK800M-4-HT	800±20%	1400	3	3	300	250	1	1.0	800
2RK1000M-4-HT	1000±20%	1600	3	3	300	500	1	1.0	1000
2RK1200M-4-HT	1200±20%	1900	3	3	300	500	1	1.0	1200

Note: Size 4.2x4.0mm series

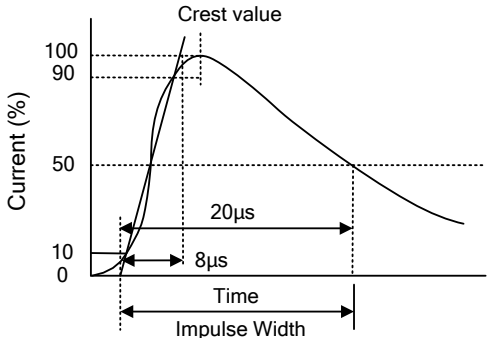
GAS DISCHARGE TUBS

2R-4-HT series

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/ μ s	8/20 μ s 10times	8/20 μ s 100A	Test Voltage	(G Ω)	1MHz		
	(V)	(V)	(KA)	(times)	DC(V)		(pF)		
2RK1400M-4-HT	1400 $\pm$ 20%	2800	3	300	500	1	1.0	-	None
2RK1600M-4-HT	1600 $\pm$ 20%	3000	3	300	500	1	1.0	-	None
2RK2000M-4-HT	2000 $\pm$ 20%	3800	3	300	1000	1	1.0	-	None
2RK2500M-4-HT	2500 $\pm$ 20%	4200	3	300	1000	1	1.0	1250VAC, 3s	None
2RK3000M-4-HT	3000 $\pm$ 20%	4500	3	300	1000	1	1.0	1500VAC, 3s	None
2RK3600M-4-HT	3600 $\pm$ 20%	4800	3	300	1000	1	1.0	1850VAC, 3s	None

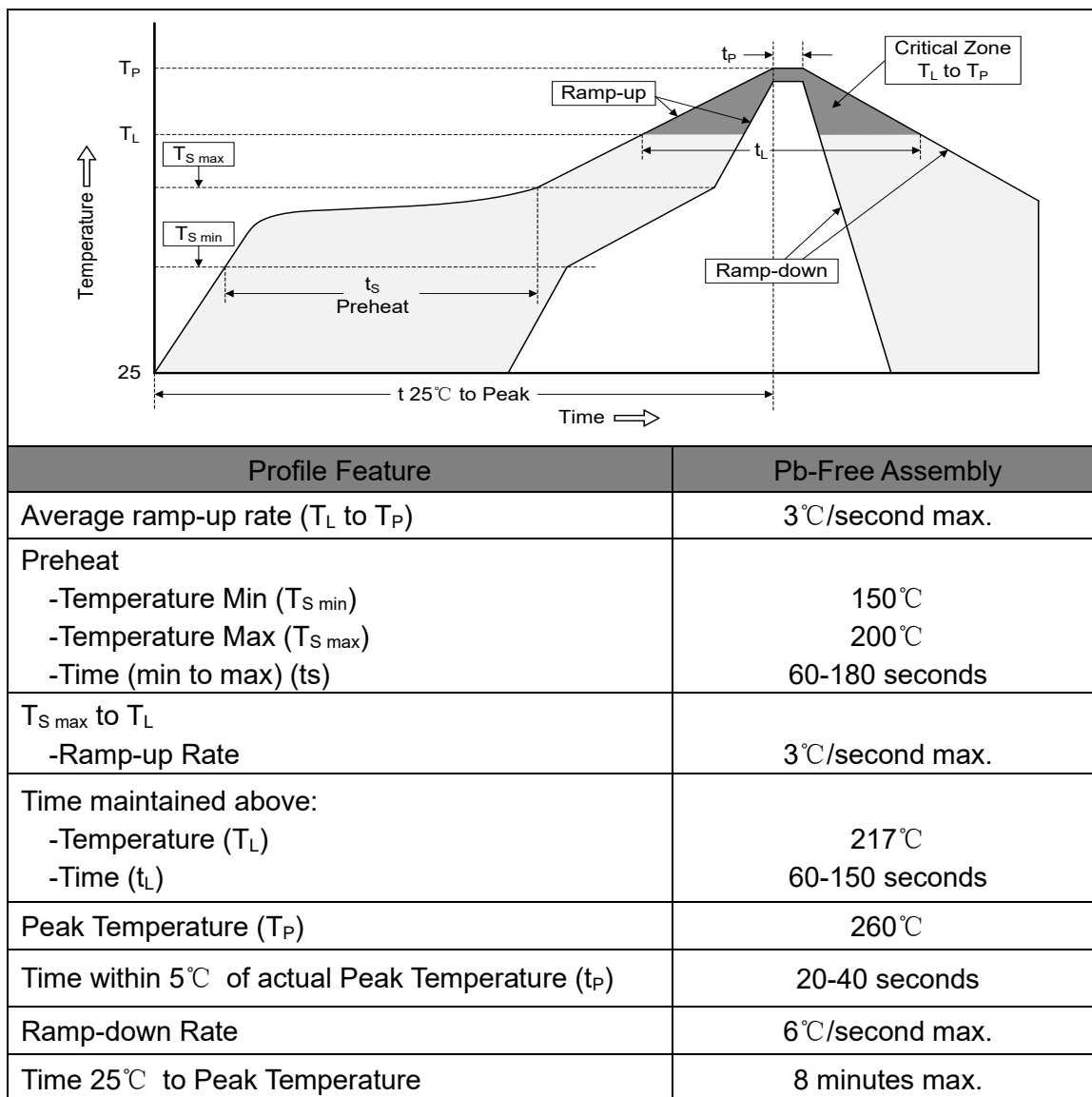
Note: Size 4.0x5.6mm series

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 8/20μs 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	

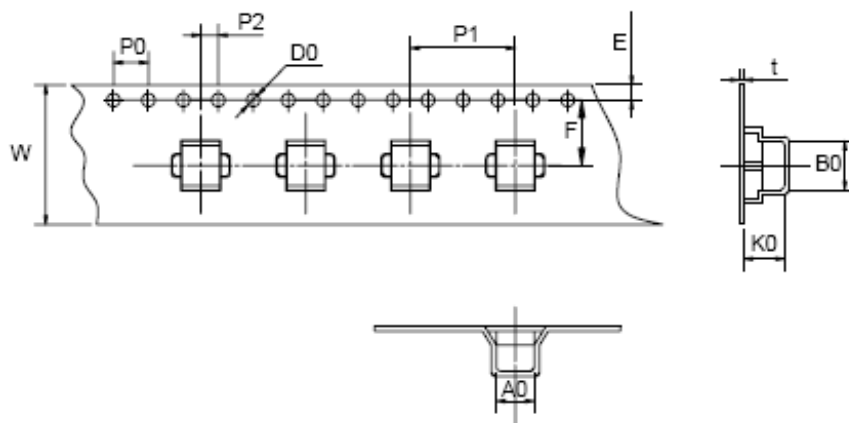
Recommended Soldering Conditions

Reflow Soldering



Packaging

Tape

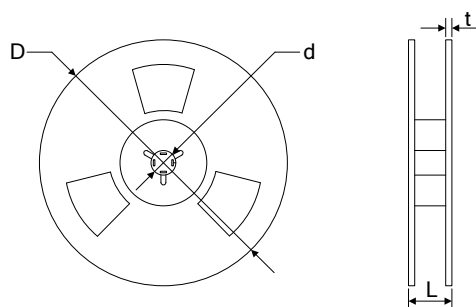


Symbol	Dimension (mm)	
	Spec.	Tolerance
W	16.00	±0.20
P0	4.00	±0.10
P1	12.00	±0.20
P2	2.00	±0.10
D0	1.55	±0.05
E	1.75	±0.10
F	7.50	±0.10
A0	4.27	±0.10
K0	5.20	±0.10
B0	4.45	±0.10
t	0.50	±0.10

GAS DISCHARGE TUBS

2R-4-HT series

Reel

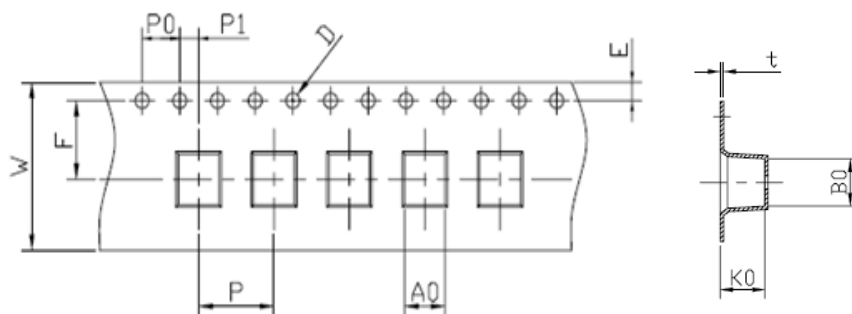


D	330.00	±2.00
d	13.00	±0.50
L	20.00	±2.00
t	2.00	±0.20

Quantity: 900pcs

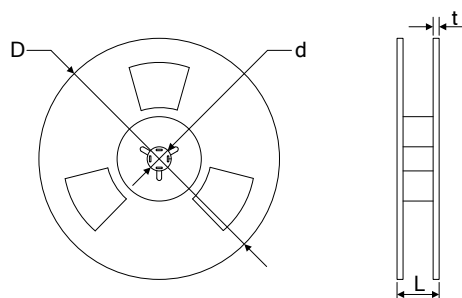
Note: Packaging for size 4.2x4.0mm series

Tape



Symbol	Dimension (mm)	
	Spec.	Tolerance
W	16.00	±0.20
P	8.00	±0.20
P0	4.00	±0.20
P1	2.00	±0.20
D	1.50	±0.10
E	1.75	±0.10
F	7.50	±0.10
A0	4.30	±0.10
B0	5.80	±0.10
K0	4.30	±0.10
t	0.40	±0.10

Reel



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

Quantity: 1500pcs

Note: Packaging for size 4.0x5.6mm series

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