

Gas Discharge Tube: GD52R Series



2-Electrode $\Phi 5.5 \times T6$ mm Type

■ Features

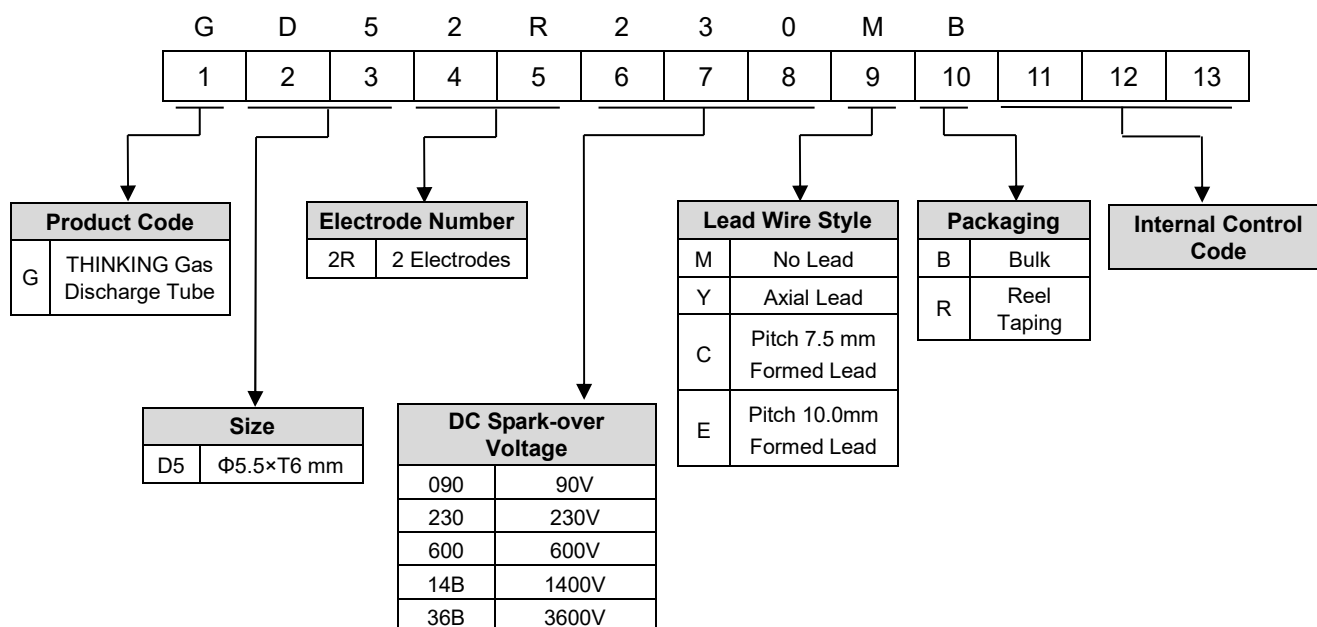
1. RoHS & HF compliant
2. Rugged ceramic-metal construction
3. Available with or without leads
4. DC spark-over voltage: 90~3600V
5. Low capacitance
6. Agency recognition: UL / Cul
7. Operating temperature: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
Storage temperature: $-40^{\circ}\text{C} \sim +115^{\circ}\text{C}$



■ Recommended Applications

1. Cable modem
2. xDSL
3. Set-top box
4. TV sets
5. Power supply
6. Consumer electronics

■ Part Number Code



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■ Characteristics

Part No.	DC Spark-over Voltage	Max. Impulse Breakdown Voltage		Max. Impulse Discharge Current (8/20 μ s)		Impulse Life (10/1000 μ s)	Normal Alternating Discharge Current	AC withstand voltage	DC Holdover Voltage	Minimum Insulation Resistance	Maximum Capacitance (1MHz)	Safety Approvals			
	100V/S	100V/ μ s	1KV/ μ s	1 time	10 times	100A	50Hz, 1 Sec	ID=10mA, 1 min	<150ms			(G Ω)	(pF)	UL 1449/ cUL	UL 497B
	(V)	(V)	(V)	(KA)		(Times)	(A)	(V)	(V)					(G Ω)	(pF)
GD52R090□□	90 \pm 20%	600	700	10	5	300	5	/	52	1	1		√		
GD52R120□□	120 \pm 20%	600	700					/	52			√			
GD52R130□□	130 \pm 20%	600	700					/	52			√			
GD52R145□□	145 \pm 20%	600	700					/	52			√			
GD52R230□□	230 \pm 20%	600	700					/	80			√			
GD52R250□□	250 \pm 20%	600	700					/	80			√			
GD52R300□□	300 \pm 20%	700	900					/	150			√			
GD52R350□□	350 \pm 20%	700	900					/	150			√			
GD52R400□□	400 \pm 20%	800	1000					/	150			√			
GD52R470□□	470 \pm 20%	900	1100					/	150			√			
GD52R600□□	600 \pm 20%	1300	1500	5	2.5	2.5	/	150	√	√					
GD52R800□□	800 \pm 20%	1500	1700				/	150	√	√					
GD52R10B□□	1000 \pm 20%	1600	1800	3	1.5	300*	2	/	150	√					
GD52R12B□□	1200 \pm 20%	1800	2000					/	150	√					
GD52R14B□□	1400 \pm 20%	2200	2400					/	150	√					
GD52R16B□□	1600 \pm 20%	2400	2600					/	150	√					
GD52R20B□□	2000 \pm 20%	2800	3000					1000	150	√					
GD52R25B□□	2500 \pm 20%	3300	3500					1250	150	√					
GD52R30B□□	3000 \pm 20%	3800	4000					1500	150	√					
GD52R35B□□	3500 \pm 20%	4300	4500					1750	150	√					
GD52R36B□□	3600 \pm 20%	4400	4600					1800	150	√					

Note 1: The first □ is style of lead wire, and the second □ is packaging.

Note 2: UL 497B File No: E245070, UL 1449 4th File No: E314979

Note 3:* means products measured with an 8/20us waveform, 100A

Note 4: Insulation resistance test conditions:

DC Spark-over Voltage	DC Measuring Voltage
90-150V	50V
151-400V	100V
401-1000V	250V
1001-2000V	500V
>2001V	1000V

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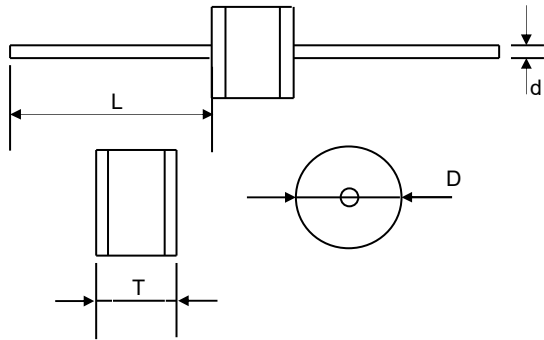


2-Electrode $\Phi 5.5$ x T6 mm Type

Dimension

□ = Y (Axial Lead Type)

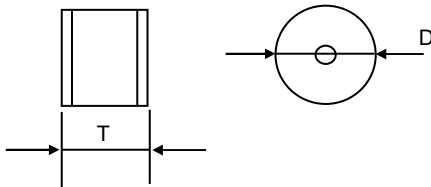
(Unit: mm)



Item	Dimensions	
	Spec.	Tolerance
D	5.5	+0.3/-0.5
T	6.0	+0.3/-0.5
L	20	Min.
d	0.8	± 0.05

□ = M (No Lead Type)

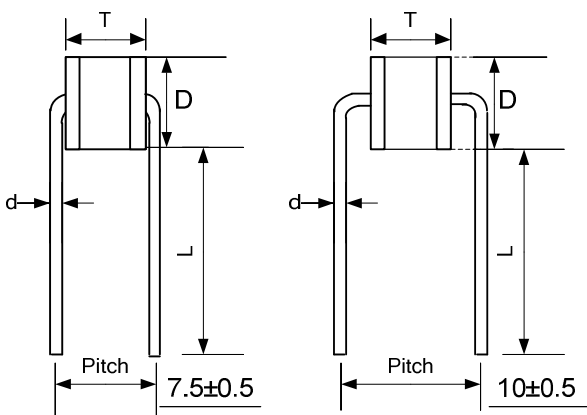
(Unit: mm)



Item	Dimensions	
	Spec.	Tolerance
D	5.5	+0.3/-0.5
T	6.0	+0.3/-0.5

□ = C, E (Formed Lead)

(Unit: mm)



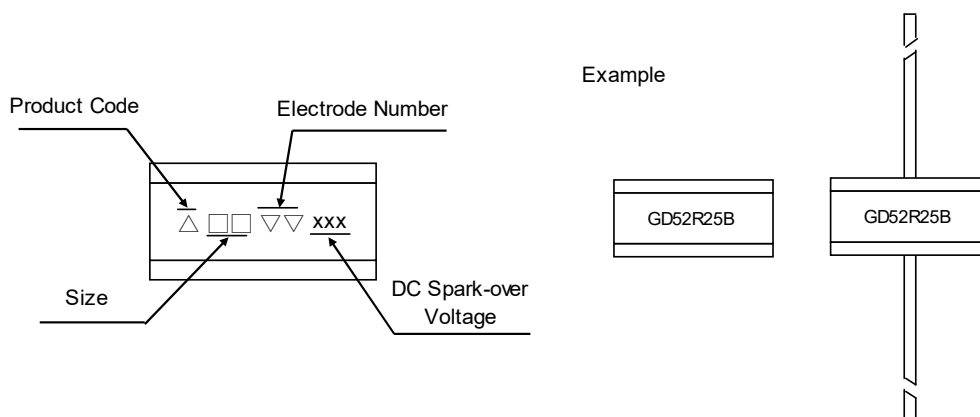
Item	Dimensions	
	Spec.	Tolerance
D	5.5	+0.3/-0.5
T	6.0	+0.3/-0.5
d	0.8	± 0.05
L	15.0	Min
P	7.5	± 0.5
	10	± 0.5

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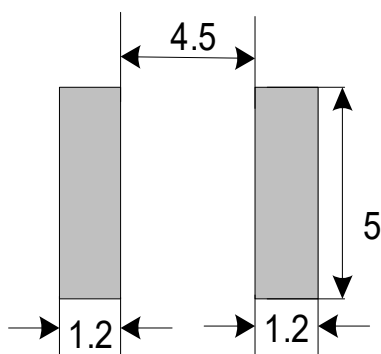


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■ Marking



■ Recommended Pad Size



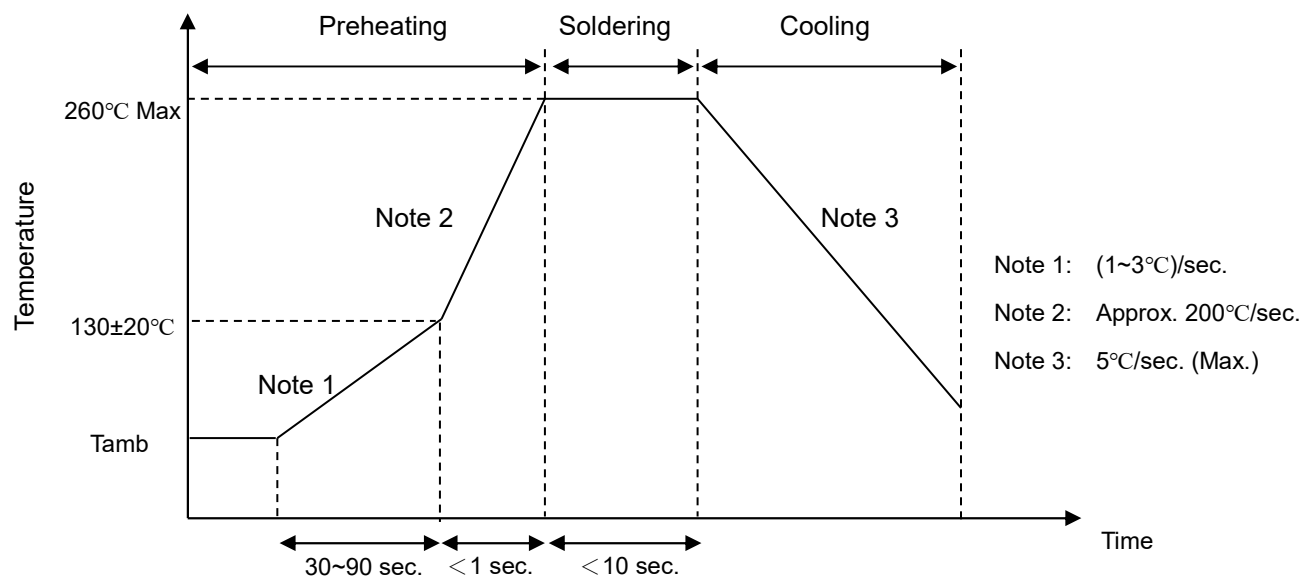
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■ Soldering Recommendation

● Wave Soldering Profile



● Recommended Reworking Conditions with Soldering Iron

Item	Condition
Temperature of Soldering Iron-tip	360°C (max.)
Soldering Time	3 sec. (max.)
Distance from Tube	2 mm (min.)

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■ Packaging

● Bulk

- ◆ For No Lead (M Type) :

Quantity: 200pcs per PVC Box, 1200pcs per Inner Box

Quantity (MPQ): 1200pcs

- ◆ For Axial Lead (Y Type):

Quantity: 100pcs per PVC Box, 500pcs per Inner Box

Quantity (MPQ): 500pcs

- ◆ For Formed Lead (C, E Type) :

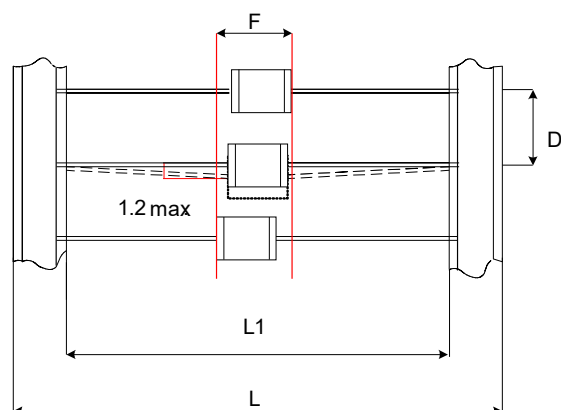
Quantity: 100pcs per PVC Box, 500pcs per Inner Box

Quantity (MPQ): 500pcs

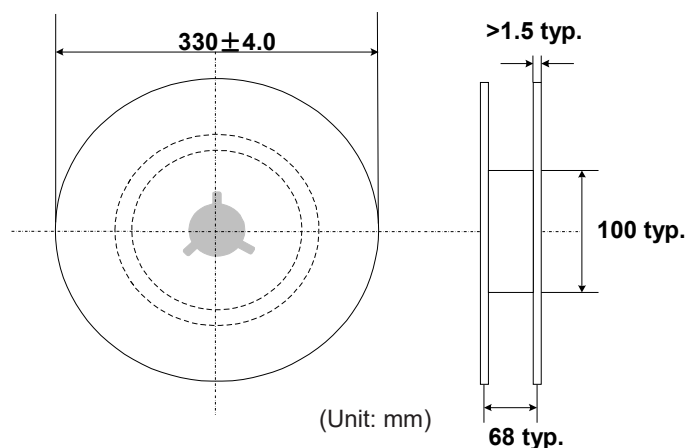
● Taping

For 2-electrode Axial Lead GDT: 500 PCS/Reel

Unit: mm



Item	Dimension	
	Spec.	Tolerance
L1	52	± 2
L	64	± 3
D	10	± 0.5
F	$T \pm 1.4$	Max.



■ Warehouse Storage Conditions of Products

● Storage Conditions:

1. Storage Temperature: $-10^{\circ}\text{C} \sim +40^{\circ}\text{C}$
2. Relative Humidity: $\leq 75\% \text{RH}$
3. Keep away from corrosive atmosphere and sunlight.

● Period of Storage: 1 year