GDTN3RD5-XX

Gas Discharge Tube

Features

- 3-electrode arrester
- Very small size
- Extremely fast response time
- Stable performance over life
- Extremely low capacitance (<1.5pF)
- High insulation resistance
- Moisture sensitivity level: Level 1
- RoHS & HF Compliant



Application

- Modem
- Splitter
- Base stations
- Application with limited space

Electrical specifications

Part number	DC Spark-over Voltage [1) 2)]	Maximum Impulse Spark-over Voltage	Service Life	Insulation resistance	Capacitance
	100V/s	1kv/μs	8/20μs 10times	@ 100V_{DC}	@ 1 MHz
	(V)	(V)	(KA)	(GΩ)	(pF)
GDTN3RD5-75	75±25%	650	5	>1@50VDC	< 1.5
GDTN3RD5-90	90±25%	650	5	>1@50VDC	< 1.5
GDTN3RD5-150	150±20%	650	5	> 1	< 1.5
GDTN3RD5-230	230±20%	700	5	> 1	< 1.5
GDTN3RD5-300	300±20%	800	5	> 1	< 1.5
GDTN3RD5-350	350±20%	800	5	> 1	< 1.5
GDTN3RD5-400	400±20%	900	5	> 1	< 1.5
GDTN3RD5-420	420±20%	900	5	> 1	< 1.5
GDTN3RD5-470	470±20%	950	5	> 1	< 1.5
GDTN3RD5-600	600±20%	1050	5	> 1	< 1.5
GDTN3RD5-800	800±20%	1400	5	> 1	< 1.5

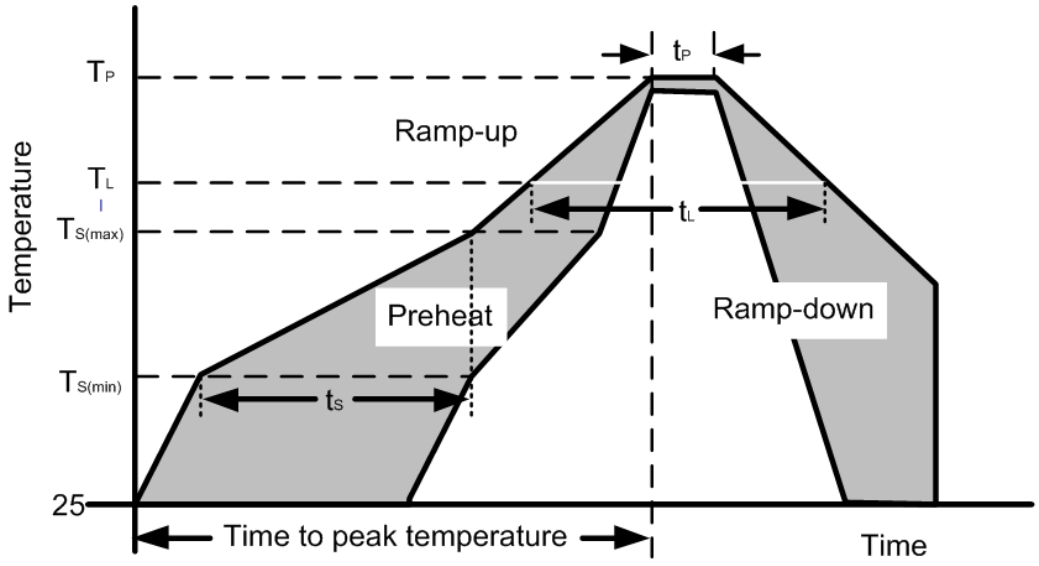
1) At delivery AQL 0.65 level II, DIN ISO 2859.
2) In ionized mode.

Thermal Resistances

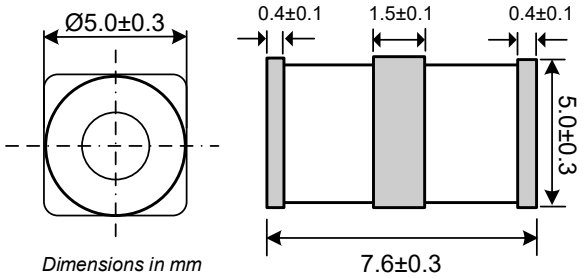
Parameter	Value	Unit
Storage & Operating temperature range	-40 to +125	°C

Reflow Profile

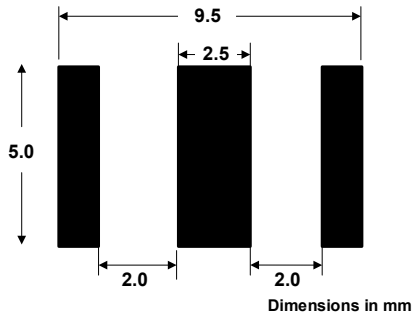
Reflow Condition		Pb – Free assembly
Pre Heat	Temperature Min ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (ts)	60 – 190 secs
Average ramp up rate (Liquidus Temp) (T_L) to peak		3°C/second max
$T_{S(max)}$ to T_L——Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Temperature (t_L)	60 – 150 seconds
Peak Temperature (T_P)		$260^{+0/-5}$ °C
Time within actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		5°C/second max
Time 25°C to peak Temperature (T_P)		8 minutes Max.
Do not exceed		260°C



Dimensional drawing



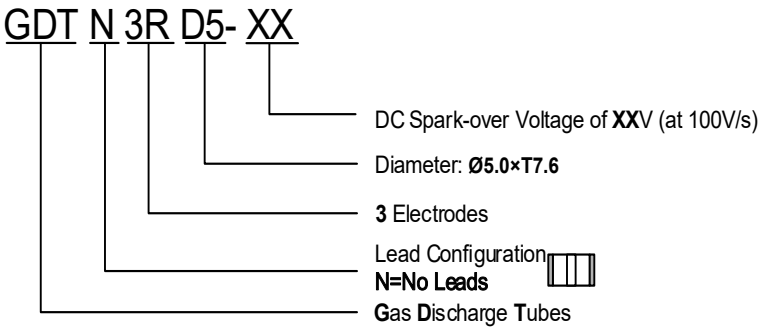
Recommended Solder Pad Layout



Cautions and warnings

- Gas Discharge Tubes must not be operated directly in power supply networks.
- Gas Discharge Tubes may become hot in case of longer periods of current stress (danger of burning).
- Gas Discharge Tubes may be used only within their specified values. In case of overload, the head contacts may fail or the component may be destroyed.
- Damaged Gas Discharge Tubes must not be re-used.
- Operation beyond the rated voltage or current may result in rupture electrical arcing or flame.

Part Numbering System



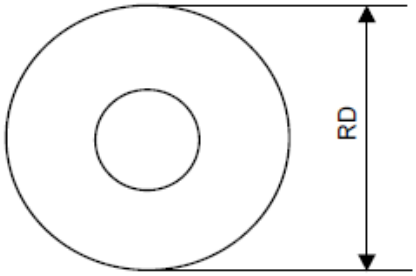
Package Information

Tape and Reel:1000 Pcs/Reel .

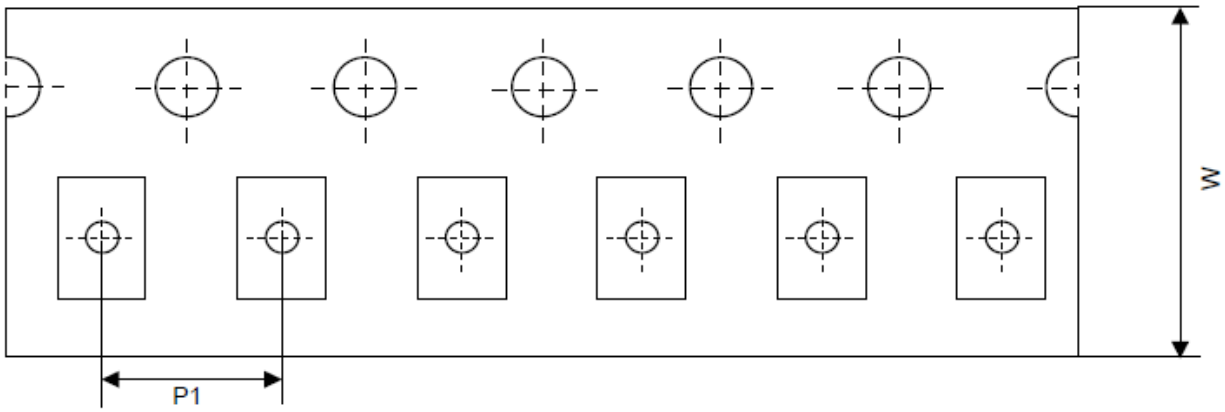
Tape and Reel Information

RD	Reel Dimensions	13mm
W	Overall width of the carrier tape	16 mm
P1	Pitch between successive cavity centers	8 mm

Reel Dimensions Schematic diagram



Tape Dimensions Schematic diagram



Contact Information

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Product Specification Statement

1.The product specification aims to provide users with a reference regarding various product parameters, performance, and usage. It presents certain aspects of the product's performance in graphical form and is intended solely for users to select product and make product comparisons, enabling users to better understand and evaluate the characteristics and advantages of the product. It does not constitute any commitment, warranty, or guarantee.

2.The product parameters described in the product specification are numerical values, characteristics, and functions obtained through actual testing or theoretical calculations of the product in an independent or ideal state. Due to the complexity of product applications and variations in test conditions and equipment, there may be slight fluctuations in parameter test values. WAYON shall not guarantee that the actual performance of the product when installed in the customer's system or equipment will be entirely consistent with the product specification, especially concerning dynamic parameters. It is recommended that users consult with professionals for product selection and system design. Users should also thoroughly validate and assess whether the actual parameters and performance when installed in their respective systems or equipment meet their requirements or expectations. Additionally, users should exercise caution in verifying product compatibility issues, and WAYON assumes no responsibility for the application of the product.

3.WAYON strives to provide accurate and up-to-date information to the best of our ability. However, due to technical, human, or other reasons, WAYON cannot guarantee that the information provided in the product specification is entirely accurate and error-free. WAYON shall not be held responsible for any losses or damages resulting from the use or reliance on any information in these product specifications. WAYON reserves the right to revise or update the product specification and the products at any time without prior notice, and the user's continued use of the product specification is considered an acceptance of these revisions and updates. Prior to purchasing and using the product, users should verify the above information with WAYON to ensure that the product specification is the most current, effective, and complete. If users are particularly concerned about product parameters, please consult WAYON in detail or request relevant product test reports. Any data not explicitly mentioned in the product specification shall be subject to separate agreement.

4.Users are advised to pay attention to the parameter limit values specified in the product specification and maintain a certain margin in design or application to ensure that the product does not exceed the parameter limit values defined in the product specification. This precaution should be taken to avoid exceeding one or more of the limit values, which may result in permanent irreversible damage to the product, ultimately affecting the quality and reliability of the system or equipment.

5.The design of the product is intended to meet civilian needs and is not guaranteed for use in harsh environments or precision equipment. It is not recommended for use in systems or equipment such as medical devices, aircraft, nuclear power, and similar systems, where failures in these systems or equipment could reasonably be expected to result in personal injury. WAYON shall assume no responsibility for any consequences resulting from such usage.

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