



# 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

### Application

- Modem
- Splitter
- Base stations



### Electrical Specifications

Part number	DC Spark-over Voltage <sup>1) 2)</sup>	Maximum Impulse Spark-over Voltage	Service Life <sup>3)</sup>	Insulation resistance	Capacitance	Marking
	100V/s	1kv/μs	8/20μs 10times	@ 100V <sub>DC</sub>	@ 1 MHz	
	(V)	(V)	(KA)	(GΩ)	(pF)	
GDTN3RD5-75	75 ± 25%	650	5	>1@50V <sub>DC</sub>	< 1.5	3R-075
GDTN3RD5-90	90 ± 25%	650	5	>1@50V <sub>DC</sub>	< 1.5	3R-090
GDTN3RD5-150	150 ± 25%	650	5	> 1	< 1.5	3R-150
GDTN3RD5-230	230 ± 20%	700	5	> 1	< 1.5	3R-230
GDTN3RD5-300	300 ± 20%	800	5	> 1	< 1.5	3R-300
GDTN3RD5-350	350 ± 20%	800	5	> 1	< 1.5	3R-350
GDTN3RD5-400	400 ± 20%	900	5	> 1	< 1.5	3R-400
GDTN3RD5-420	420 ± 20%	900	5	> 1	< 1.5	3R-420
GDTN3RD5-470	470 ± 20%	950	5	> 1	< 1.5	3R-470
GDTN3RD5-600	600 ± 20%	1050	5	> 1	< 1.5	3R-600

1) At delivery AQL 0.65 level II, DIN ISO 2859.

2) In ionized mode.

3) Tests according to ITU-T Rec. K. 12 and UL 497B.

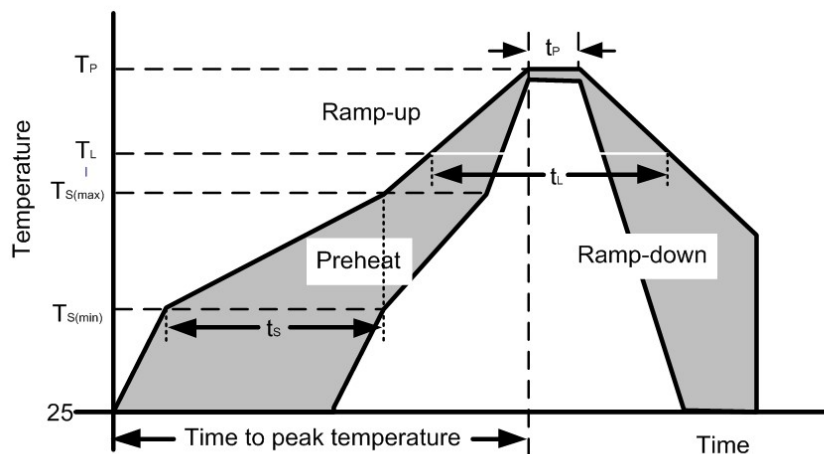
Terms and current waveforms in accordance with: ITU-T Rec. K.12; IEC 61643-21 and DIN 57845/VDE0845.

### Thermal Consideration

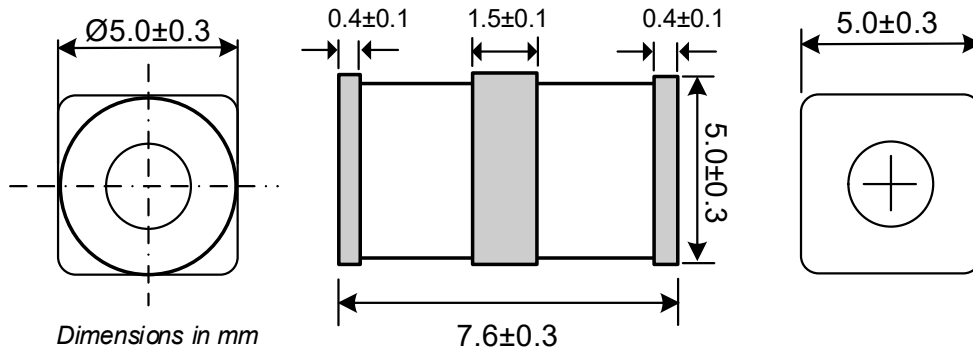
Symbol	Parameter	Value	Unit
Ts & Tj	Storage & Operating temperature range	-40 to +85	°C

### Soldering Parameters

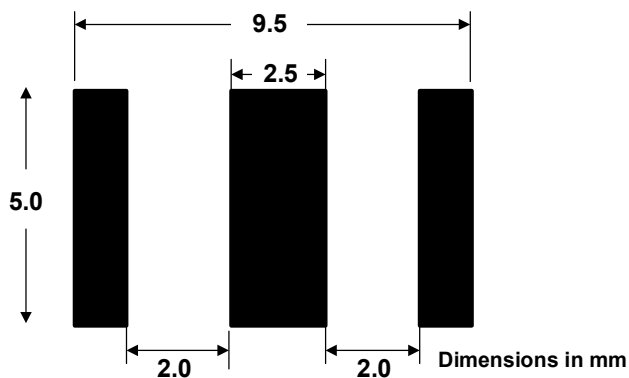
Reflow Condition		Pb – Free assembly
Pre Heat	Temperature Min ( $T_{s(min)}$ )	150°C
	Temperature Max ( $T_{s(max)}$ )	200°C
	Time (min to max) ( $t_s$ )	60 – 190 secs
Average ramp up rate (Liquidus Temp) ( $T_L$ ) to peak		5°C/second max
$T_{s(max)}$ to $T_L$ Ramp-up Rate		5°C/second max
Reflow	Temperature ( $T_L$ ) (Liquidus)	217°C
	Temperature ( $t_L$ )	60 – 150 seconds
Peak Temperature ( $T_P$ )		260 <sup>+0/-5</sup> °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



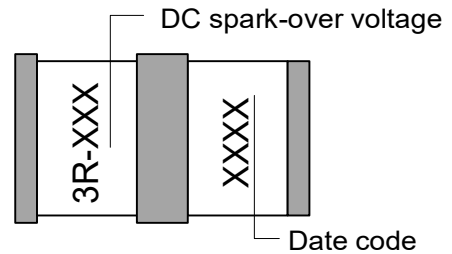
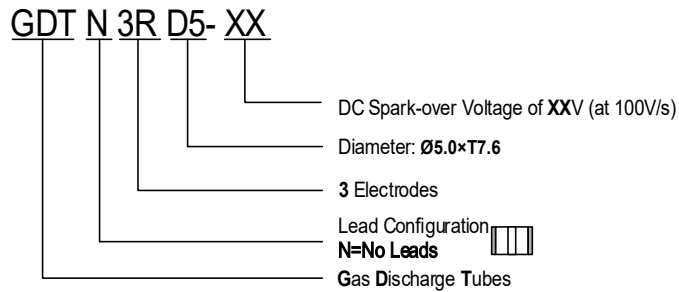
## Solder Pad Layout



## 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.

## Part Numbering and Marking System



## Package Information

Tape and reel:1000 pcs per reel.

## Contact Information

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*Specifications are subject to change without notice.  
 The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.  
 Users should verify actual device performance in their specific applications.*