

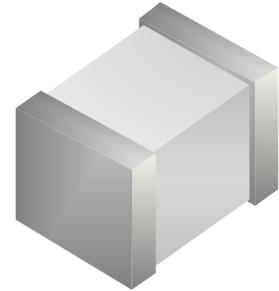


# GDTN2RS3-90HP

## Gas Discharge Tube

### Features

- 2-electrode arrester
- Very small size
- Extremely fast response time
- Stable performance over life
- Extremely low capacitance (<1.0pF)
- High insulation resistance



### Application

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

### Electrical Specifications

DC spark-over voltage <sup>1) 2)</sup>	90 ± 25	V %
Impulse spark-over voltage at 1 kV/μs - typical values of distribution	< 650	V
Service life <sup>3)</sup> 10 operations 8/20 μs	3.0	kA
Insulation resistance at 50 V <sub>DC</sub>	> 1	GΩ
Capacitance at 1 MHz	< 1	pF
Marking	None	

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.

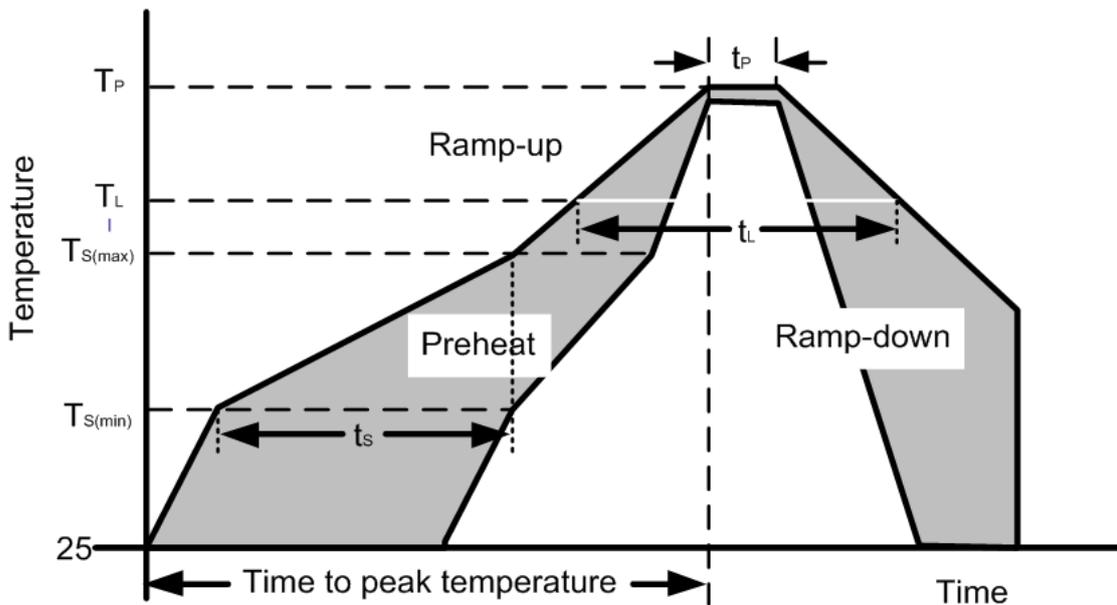
Terms and current waveforms in accordance with: ITU-T Rec. K.12; IEC 61643-21 and DIN 57845/VDE0845.

**Thermal Resistances**

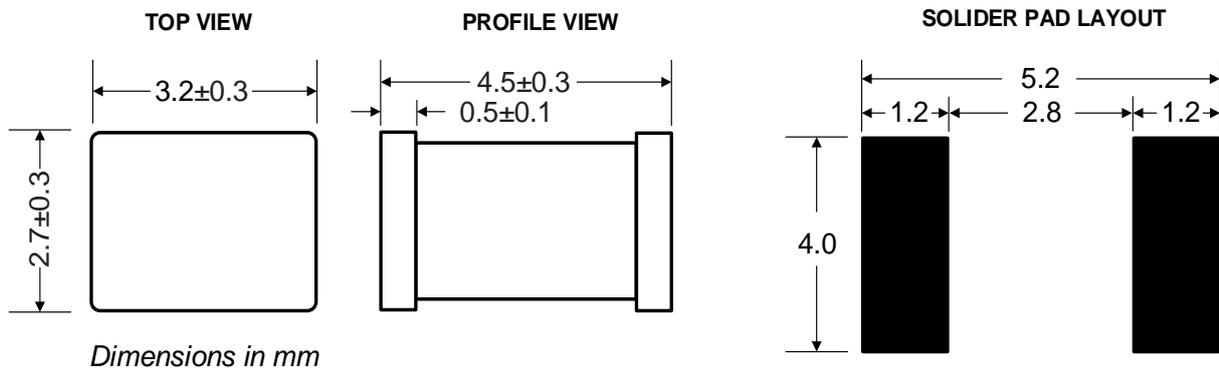
Parameter	Value	Unit
Storage & Operating temperature range	-40 to +85	°C

**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



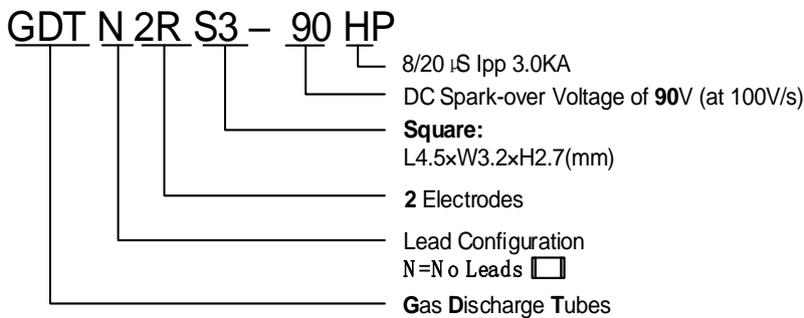
## Dimensional Drawing



## Cautions and Warnings

- Surge arresters must not be operated directly in power supply networks.
- Surge arresters may become hot in case of longer periods of current stress (danger of burning).
- Surge arresters may be used only within their specified values. In case of overload, the headcontacts may fail or the component may be destroyed.
- Damaged surge arresters must not be re-used.

## Part Numbering System



## Package Information

Tape and Reel: 2500pcs per reel.

## Contact Information

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For additional information, please contact your local Sales Representative.

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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.*