

DATA SHEET

GAS DISCHARGE TUBE – 3R-5-S SERIES

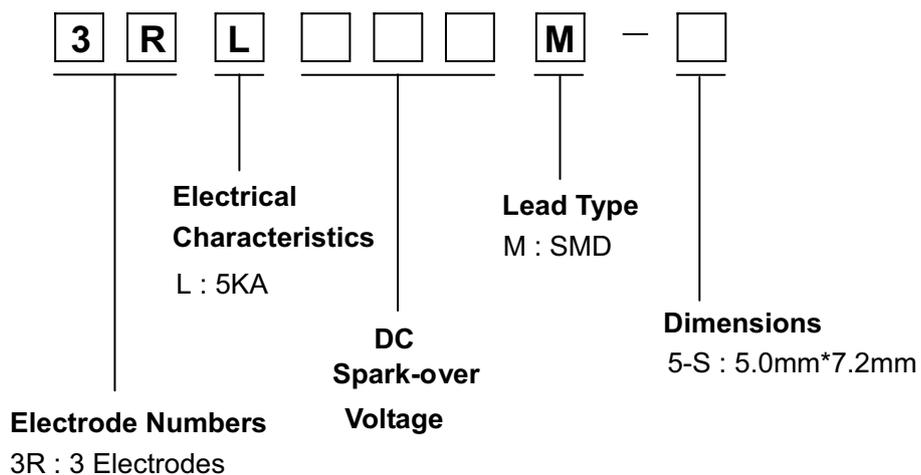
FEATURES

- ✧ 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 (≤2pF).
- ✧ High holdover voltage.
- ✧ Large absorbing transient current capability.
- ✧ Micro-Gap Design
- ✧ SIZE: 5.0*7.2mm
- ✧ Storage and operational temperature: -40°C ~ +85°C
- ✧ Meets MSL level 1, per J -STD-020

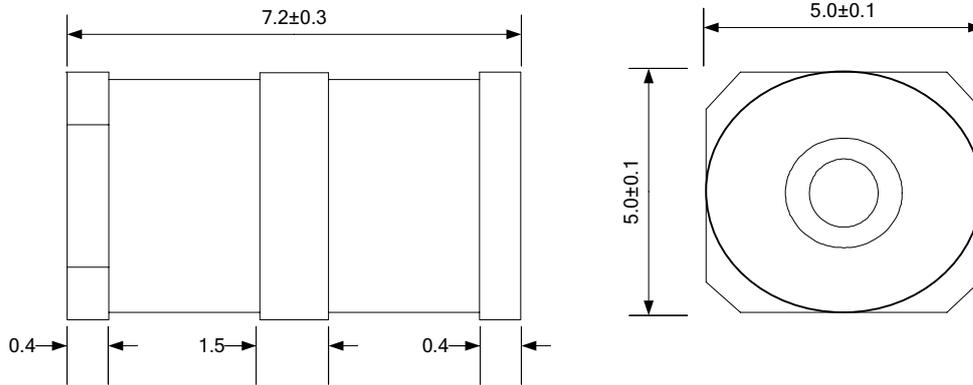
APPLICATION

- ✧ Repeaters, Modems.
- ✧ Telephone Interface, Line cards.
- ✧ Data communication equipment.
- ✧ Line test equipment.

PART NUMBER CODE



DIMENSIONS



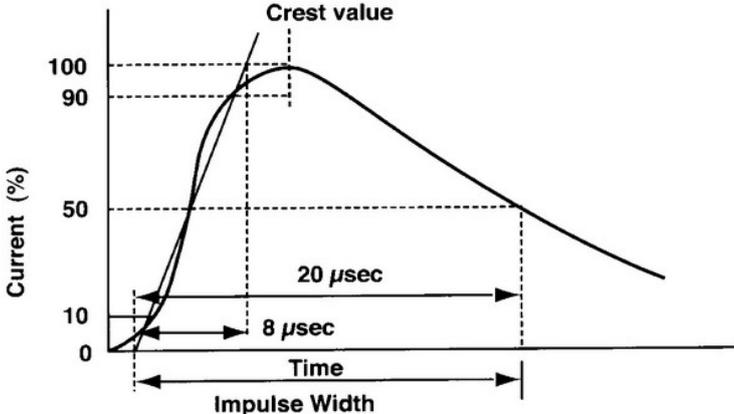
S TYPE

ELECTRICAL CHARACTERISTIC

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/ μ s	8/20 μ s, 10times	50Hz, 1sec	10/1000 μ s, 200A	Test Voltage	(G Ω)	1MHz	
	(V)	(V)	(KA)	(A)	(times)	DC(V)		(pF)	
3RL075M-5-S	75 \pm 20%	700	5	5	300	25	1.0	2.0	3SL075M
3RL090M-5-S	90 \pm 20%	600				50			3SL090M
3RL120M-5-S	120 \pm 20%	600				50			3SL120M
3RL150M-5-S	150 \pm 20%	600				100			3SL150M
3RL200M-5-S	200 \pm 20%	600				100			3SL200M
3RL230M-5-S	230 \pm 20%	650				100			3SL230M
3RL250M-5-S	250 \pm 20%	650				100			3SL250M
3RL300M-5-S	300 \pm 20%	800				100			3SL300M
3RL350M-5-S	350 \pm 20%	800				100			3SL350M
3RL400M-5-S	400 \pm 20%	900				100			3SL400M
3RL420M-5-S	420 \pm 20%	900				250			3SL420M
3RL470M-5-S	470 \pm 20%	900				250			3SL470M
3RL600M-5-S	600 \pm 20%	1000				250			3SL600M

Note: Impulse discharge current for GDT is the total current equally divided between each line to ground

ELECTRICAL RATING

Item	Test Condition / Description	Requirement
DC Spark-over Voltage	The voltage is measured with a low rate of rise $dv / dt=100V/s$	
Maximum Impulse Spark-over Voltage	The maximum impulse breakdown voltage is measured with a rise time of $dv / dt=1000V/\mu s$	
Impulse Discharge Current	<p>The maximum current applying a waveform of 8/20μs that can be applied across the terminals of the gas tube without causing the gas tube to change more than $\pm 25\%$ from its initial measured DC breakdown voltage. Dwell time between pulses is 3 minutes.</p>  <p>The graph shows Current (%) on the y-axis (0, 10, 50, 90, 100) and Time on the x-axis. A curve starts at 0, rises to a peak labeled 'Crest value' at 100% at 8 μs. A horizontal dashed line at 50% current intersects the curve, and a vertical dashed line drops from that point to the x-axis, marking the end of the 20 μs pulse width. The 8 μs rise time is also indicated.</p>	To meet the specified value
Alternating Discharge Current	<p>Rated RMS value of AC current at 50Hz, 1 sec. 10 times. Intervals: 3min. DC breakdown voltage may not change more than $\pm 25\%$ from its initial measured DC breakdown voltage. $IR > 10^8$ ohms (-20%, +30% for 70 – 90V).</p>	
Insulation Resistance	The resistance of gas tube shall be measured each terminal each other terminal. please see above spec	
Capacitance	<p>The capacitance of gas tube shall be measured each terminal to each other terminal. Test frequency :1MHz</p>	