

DATA SHEET

GAS DISCHARGE TUBE – 3R-8 SERIES

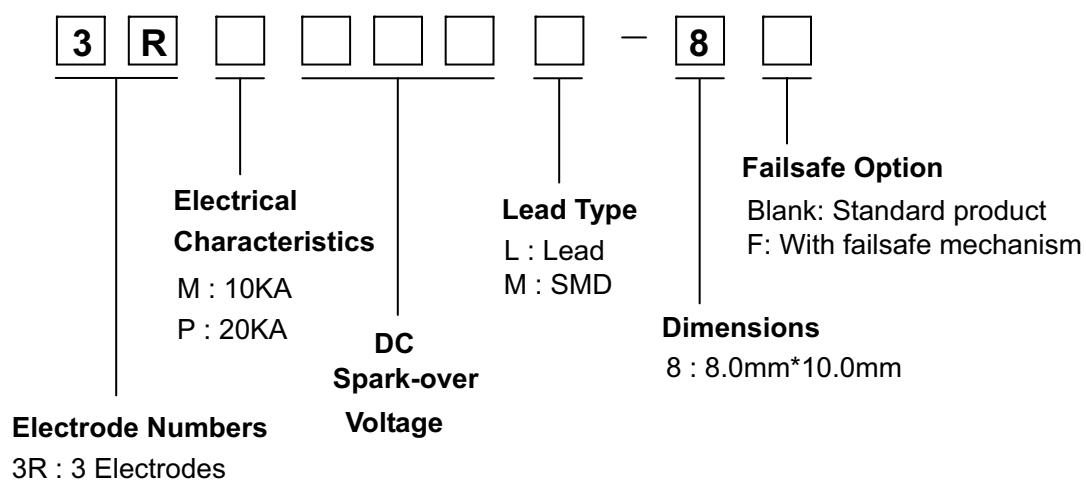
FEATURES

- ✧ 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: 8mm*10mm
- ✧ Storage and operational temperature: -40°C ~ +85°C
- ✧ Meets MSL level 1, per J -STD-020

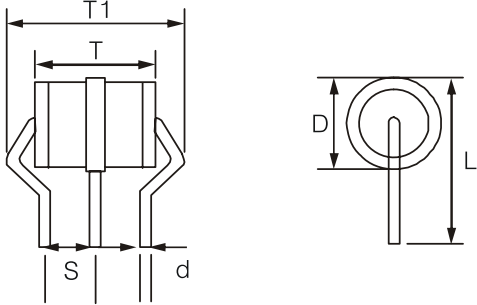
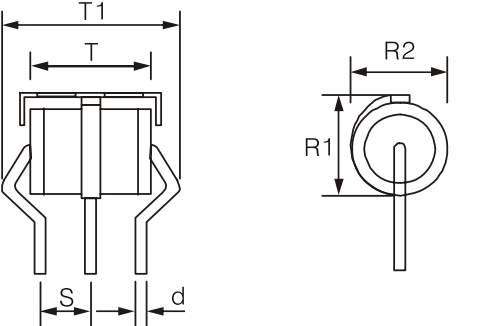
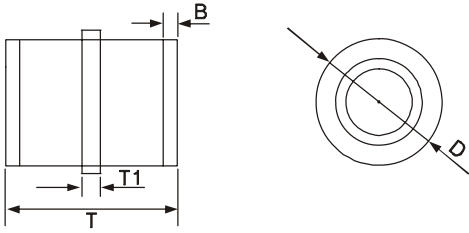
APPLICATION

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

PART NUMBER CODE



DIMENSIONS

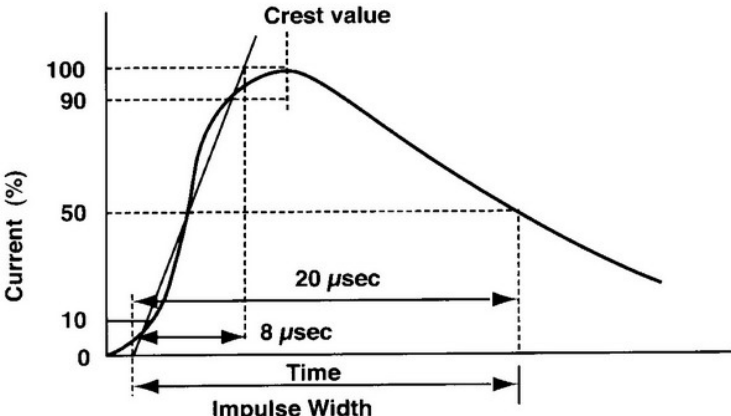
Items	Dimension		
	Spec.	Tolerance	
 <p>L TYPE</p>	D	8.0	+0.2 , -0.8
	T	10.0	±0.5
	T1	13.4	±0.8
	L	15.0	±0.5
 <p>L-F TYPE</p>	S	4.4	±0.4
	d	1.0	±0.05
	R1	9.8	±0.4
	R2	8.1	±0.3
 <p>M TYPE</p>	D	8.0	+0.2 , -0.8
	T	10.0	±0.5
	T1	1.5	±0.2
	B	1.4	±0.3

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, 100A	Test Voltage	(G Ω)	1MHz	
		(V)	(V)	(KA)	(A)	(times)	DC(V)		(pF)	
3RM075L-8	3RM075M-8	75 \pm 20%	700	10	10	300	25	1.0	2.0	3RM075-8
3RM090L-8	3RM090M-8	90 \pm 20%	700	10	10	300	50	1.0	2.0	3RM090-8
3RM150L-8	3RM150M-8	150 \pm 20%	700	10	10	300	100	1.0	2.0	3RM150-8
3RM200L-8	3RM200M-8	200 \pm 20%	700	10	10	300	100	1.0	2.0	3RM200-8
3RM230L-8	3RM230M-8	230 \pm 20%	700	10	10	300	100	1.0	2.0	3RM230-8
3RM350L-8	3RM350M-8	350 \pm 20%	850	10	10	300	100	1.0	2.0	3RM350-8
3RM400L-8	3RM400M-8	400 \pm 20%	850	10	10	300	100	1.0	2.0	3RM400-8
3RM470L-8	3RM470M-8	470 \pm 20%	950	10	10	300	250	1.0	2.0	3RM470-8
3RM600L-8	3RM600M-8	600 \pm 20%	1300	10	10	300	250	1.0	2.0	3RM600-8
3RM800L-8	3RM800M-8	800 \pm 20%	1500	10	10	300	250	1.0	2.0	3RM800-8
3RP075L-8	3RP075M-8	75 \pm 20%	700	20	20	300	25	1.0	2.0	3RP075-8
3RP090L-8	3RP090M-8	90 \pm 20%	700	20	20	300	50	1.0	2.0	3RP090-8
3RP150L-8	3RP150M-8	150 \pm 20%	700	20	20	300	100	1.0	2.0	3RP150-8
3RP200L-8	3RP200M-8	200 \pm 20%	700	20	20	300	100	1.0	2.0	3RP200-8
3RP230L-8	3RP230M-8	230 \pm 20%	700	20	20	300	100	1.0	2.0	3RP230-8
3RP350L-8	3RP350M-8	350 \pm 20%	850	20	20	300	100	1.0	2.0	3RP350-8
3RP400L-8	3RP400M-8	400 \pm 20%	850	20	20	300	100	1.0	2.0	3RP400-8
3RP470L-8	3RP470M-8	470 \pm 20%	950	20	20	300	250	1.0	2.0	3RP470-8
3RP600L-8	3RP600M-8	600 \pm 20%	1300	20	20	300	250	1.0	2.0	3RP600-8
3RP800L-8	3RP800M-8	800 \pm 20%	1500	20	20	300	250	1.0	2.0	3RP800-8

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 a current pulse starting at 0% at time 0. It rises to a peak labeled 'Crest value' at 100% current. The time to reach the crest is 8 μs. The current then decays. A horizontal line is drawn at 50% current, and a vertical dashed line is dropped from the point where the current reaches 50% to the x-axis, marking the end of the 'Impulse Width'. The total time from the start to this point is 20 μs. The y-axis is labeled 'Current (%)' with values 0, 10, 50, 90, 100. The x-axis is labeled 'Time'.</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>	