GDT > 3R - 6 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: 6mm*8.5mm
- ✧ Storage and operational temperature: -40℃ ~ +85℃
- ✧ Meets MSL level 1, per J -STD-020

Application

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

Part Number Code

3 R □ □ □ □ □ – 6 □

Electrode Numbers
3R : 3 Electrodes

Electrical Characteristics
L : 5KA
M : 10KA

DC Spark-over Voltage

Lead Type
L : Lead
M : SMD

Dimensions
6 : 6.0mm*8.5mm

Failsafe Option
Blank: Standard product
F: With failsafe mechanism

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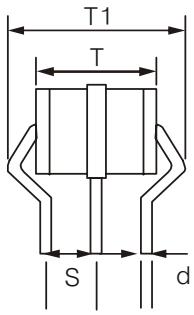
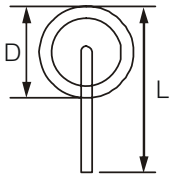
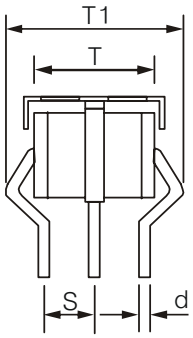
Dimensions

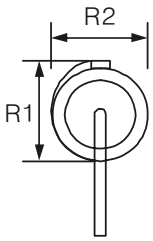




L TYPE

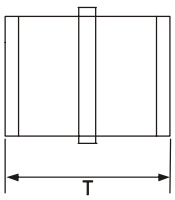
Items	Dimension	
	Spec.	Tolerance
D	6.0	+0.2,-0.5
T	8.5	±0.5
T1	15.0	Max.
L	16.0	Max.

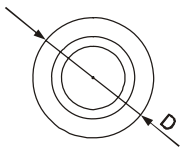




L-F TYPE

Items	Dimension	
	Spec.	Tolerance
S	3.8	±0.3
d	0.8	±0.1
R1	7.8	±0.4
R2	6.3	±0.3





M TYPE

Items	Dimension	
	Spec.	Tolerance
D	6.0	+0.2,-0.5
T	8.5	±0.5

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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
		100V/s	1000V/μs	8/20μs, 10times	50Hz,1sec	10/1000μs, 100A	Test Voltage	(GΩ)	1MHz
		(V)	(V)	(KA)	(A)	(times)	DC(V)		(pF)
3RL075L-6	3RL075M-6	75±20%	750	5.0	5.0	200	25	1.0	2.0
3RL090L-6	3RL090M-6	90±20%	750	5.0	5.0	200	50	1.0	2.0
3RL100L-6	3RL100M-6	100±20%	750	5.0	5.0	200	50	1.0	2.0
3RL110L-6	3RL110M-6	110±20%	750	5.0	5.0	200	50	1.0	2.0
3RL150L-6	3RL150M-6	150±20%	800	5.0	5.0	200	100	1.0	2.0
3RL230L-6	3RL230M-6	230±20%	800	5.0	5.0	200	100	1.0	2.0
3RL250L-6	3RL250M-6	250±20%	800	5.0	5.0	200	100	1.0	2.0
3RL300L-6	3RL300M-6	300±20%	800	5.0	5.0	200	100	1.0	2.0
3RL350L-6	3RL350M-6	350±20%	850	5.0	5.0	200	100	1.0	2.0
3RL470L-6	3RL470M-6	470±20%	950	5.0	5.0	200	250	1.0	2.0
3RL600L-6	3RL600M-6	600±20%	1300	5.0	5.0	200	250	1.0	2.0
3RL800L-6	3RL800M-6	800±20%	1500	5.0	5.0	200	250	1.0	2.0
3RM075L-6	3RM075M-6	75±20%	750	10	10	300	25	1.0	2.0
3RM090L-6	3RM090M-6	90±20%	750	10	10	300	50	1.0	2.0
3RM100L-6	3RM100M-6	100±20%	750	10	10	300	50	1.0	2.0
3RM110L-6	3RM110M-6	110±20%	750	10	10	300	50	1.0	2.0
3RM150L-6	3RM150M-6	150±20%	800	10	10	300	100	1.0	2.0
3RM230L-6	3RM230M-6	230±20%	800	10	10	300	100	1.0	2.0
3RM250L-6	3RM250M-6	250±20%	800	10	10	300	100	1.0	2.0
3RM300L-6	3RM300M-6	300±20%	800	10	10	300	100	1.0	2.0
3RM350L-6	3RM350M-6	350±20%	850	10	10	300	100	1.0	2.0
3RM470L-6	3RM470M-6	470±20%	950	10	10	300	250	1.0	2.0
3RM600L-6	3RM600M-6	600±20%	1300	10	10	300	250	1.0	2.0
3RM800L-6	3RM800M-6	800±20%	1500	10	10	300	250	1.0	2.0

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

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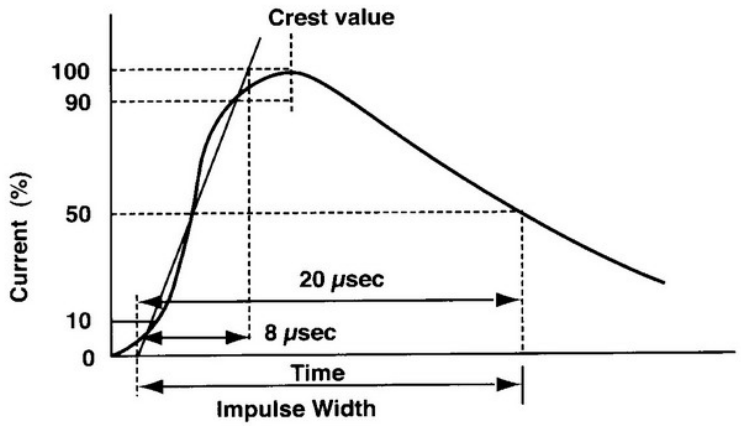
Electrical Rating

Item	Test Condition / Description	Requirement
DC Spark-over Voltage	The voltage is measured with a low rate of rise dv / dt=100V/s	To meet the specified value
Maximum Impulse Spark-over Voltage	The maximum impulse breakdown voltage is measured with a rise time of dv / dt=1000V/μs	
Impulse Discharge Current	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 ±25% from its initial measured DC breakdown voltage. Dwell time between pulses is 3 minutes. 	
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 sec. 10 times. Intervals: 3min. DC breakdown voltage may not change more than ±25% from its initial measured DC breakdown voltage. IR > 10^8 ohms (-20%, +30% for 70 – 90V).	
Insulation Resistance	The resistance of gas tube shall be measured each terminal each other terminal.please see above spec	
Capacitance	The capacitance of gas tube shall be measured each terminal to each other terminal. Test frequency :1MHz	