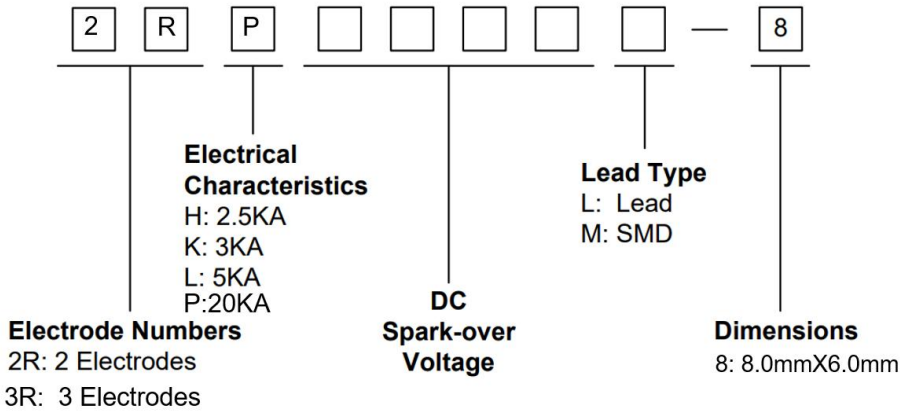
2RPXXXL/M -8 Series

Gas Discharge Tube

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 (≤1.5pF)
- High holdover voltage
- Large absorbing transient current capability
- Micro-Gap Design
- Storage and operational temperature: -40℃ ~ +85℃
- Meets MSL level 1, per J-STD-020

Part Number Coding System

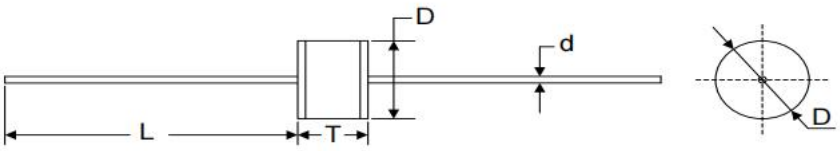


Applications

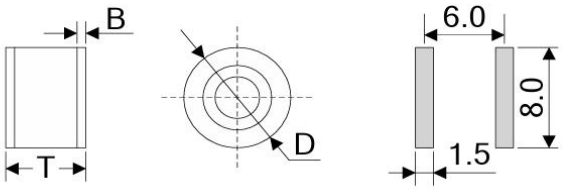
- Repeaters, Modems
- Telephone Interface, Line cards
- Data communication equipment
- Line test equipment
- Communication: RS485 etc

Dimensions

L Type



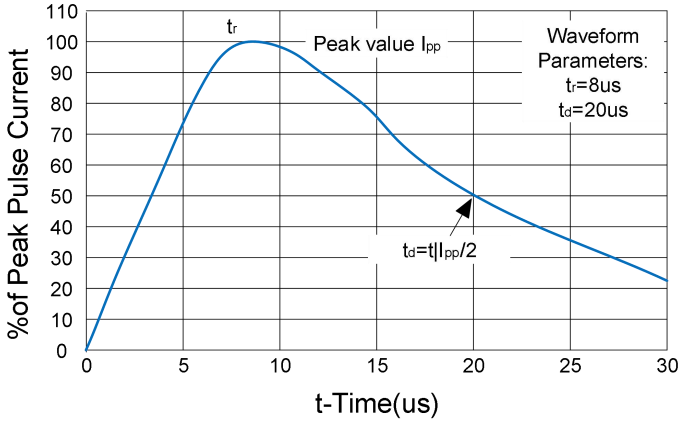
M Type



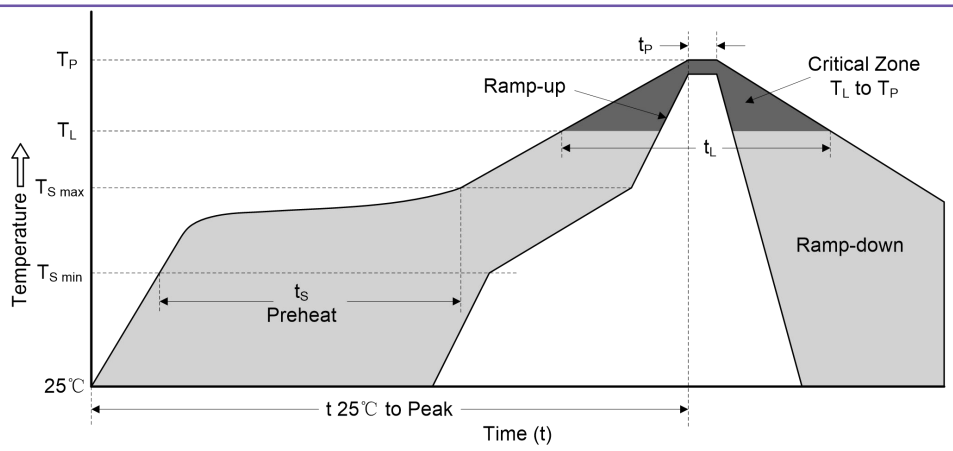
Ref.	Millimeters	
	Min	Max
D	7.7	8.3
T	5.7	6.3
d	0.9	1.1
L	-	30
D	7.7	8.3
T	5.7	6.3
B	0.4	0.6

Electrical Characteristics (T_A=25℃ unless otherwise noted)

Part Number		DC Spark-over Voltage(V)	Maximum Impulse Spark-over Voltage(V)	Nominal Impulse Discharge Current (KA)	Alternating Discharge Current(A)	Minimum Insulation Resistance		Maximum Capacitance（PF）
		100V/s	1000V/μs	8/20μs ±5times	50Hz,1sec	Test Voltage	MΩ	1MHz
2RP075L-8	2RP075M-8	75±20%	600	20	20	25	1000	1.5
2RP090L-8	2RP090M-8	90±20%	600	20	20	50	1000	1.5
2RP150L-8	2RP150M-8	150±20%	700	20	20	100	1000	1.5
2RP230L-8	2RP230M-8	230±20%	700	20	20	100	1000	1.5
2RP250L-8	2RP250M-8	250±20%	800	20	20	100	1000	1.5
2RP300L-8	2RP300M-8	300±20%	900	20	20	100	1000	1.5
2RP350L-8	2RP350M-8	350±20%	900	20	20	100	1000	1.5
2RP400L-8	2RP400M-8	400±20%	1000	20	20	100	1000	1.5
2RP470L-8	2RP470M-8	470±20%	1100	20	20	250	1000	1.5
2RP600L-8	2RP600M-8	600±20%	1300	20	20	250	1000	1.5
2RP800L-8	2RP800M-8	800±20%	1500	20	20	250	1000	1.5

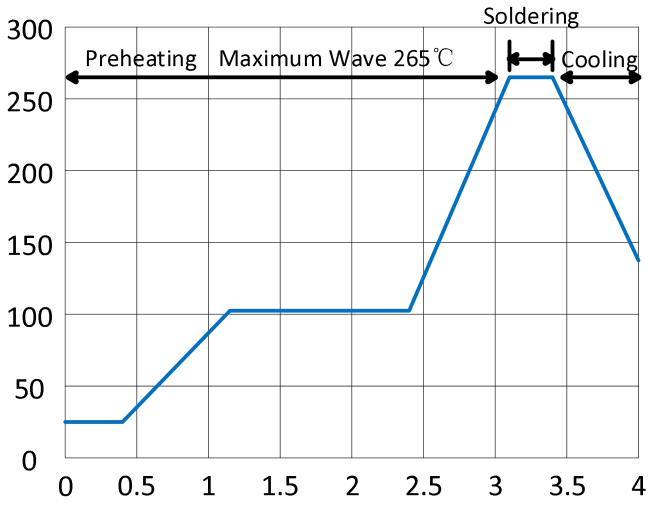
Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp dv/dt=100V/s.	To meet specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp dv/dt=1000V/μs.	
Impulse Discharge Current	Maximum 8/20 μ s surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time. 	
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 sec. for 10 times with interval time 3 min.	
Insulation Resistance	The resistance of gas tube shall be measured between two electrodes.	
Capacitance	The capacitance of gas tube shall be measured between two electrodes. Test frequency: 1MHz	

Reflow Soldering Parameters



Reflow Condition		Lead-free Assembly
Pre heat	-Temperature Min ($T_{S\,min}$)	150℃
	-Temperature Max ($T_{S\,max}$)	200℃
	-Time (min to max) (t_S)	60-120 seconds
Average ramp-up rate (T_L to T_P)		3℃/second max.
$T_{S\,max}$ to T_L -Ramp-up Rate		3℃/second max.
Reflow	-Temperature (T_L) (Liquidus)	217℃
	-Time (min to max) (t_S)	60-150 seconds
Peak Temperature (T_P)		260(+0/-5)℃
Time within 5℃ of actual Peak Temperature (t_P)		30 seconds
Ramp-down Rate		6℃/second max.
Time 25℃ to Peak Temperature(T_p)		8 minutes max.
Do not exceed		260℃

Wave Soldering Parameters



Condition	Lead-free Assembly
Peak Temperature	265℃
Dipping Time	10 seconds
Soldering	1 time