

Gas Discharge Tube (GDT) Datasheet

Features

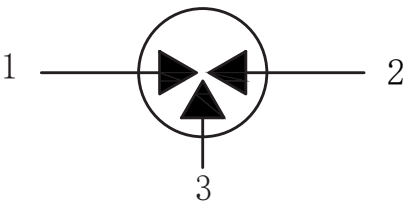
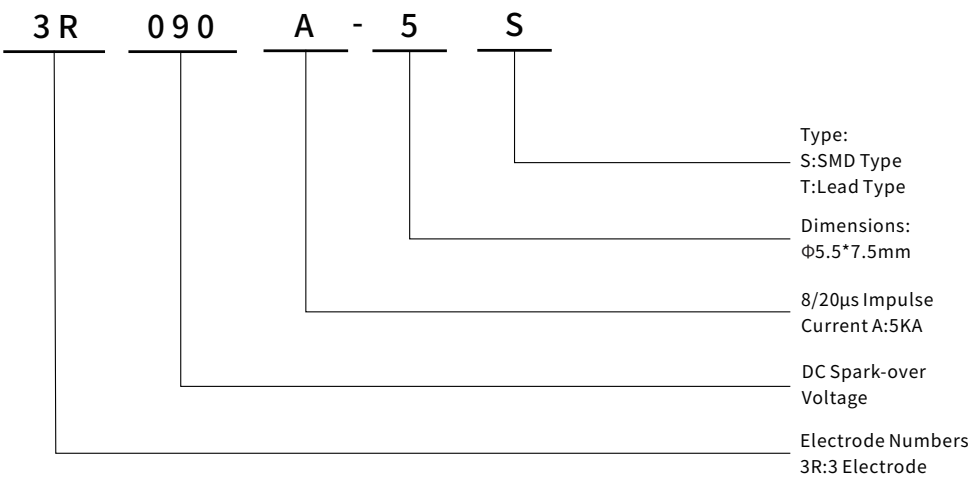
- Excellent response to fast rising transients
- Stable breakdown voltage
- Low capacitance and Insertion Loss
- High insulation resistance
- Dimensions $\Phi 5 \times 5 \times 7.5\text{mm}$
- Storage and operating temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Reliable to Protect Electrostatic Surge
- High Current Handling Capability @8/20 μs ;
- Moisture sensitivity level :Level 1

DC Spark-over Voltage
75V to 800V

Applications

- Test equipment
- AC Power
- Power supplies
- Telephone Interface, Line cards
- General Telecommunications equipment

Part Number Code



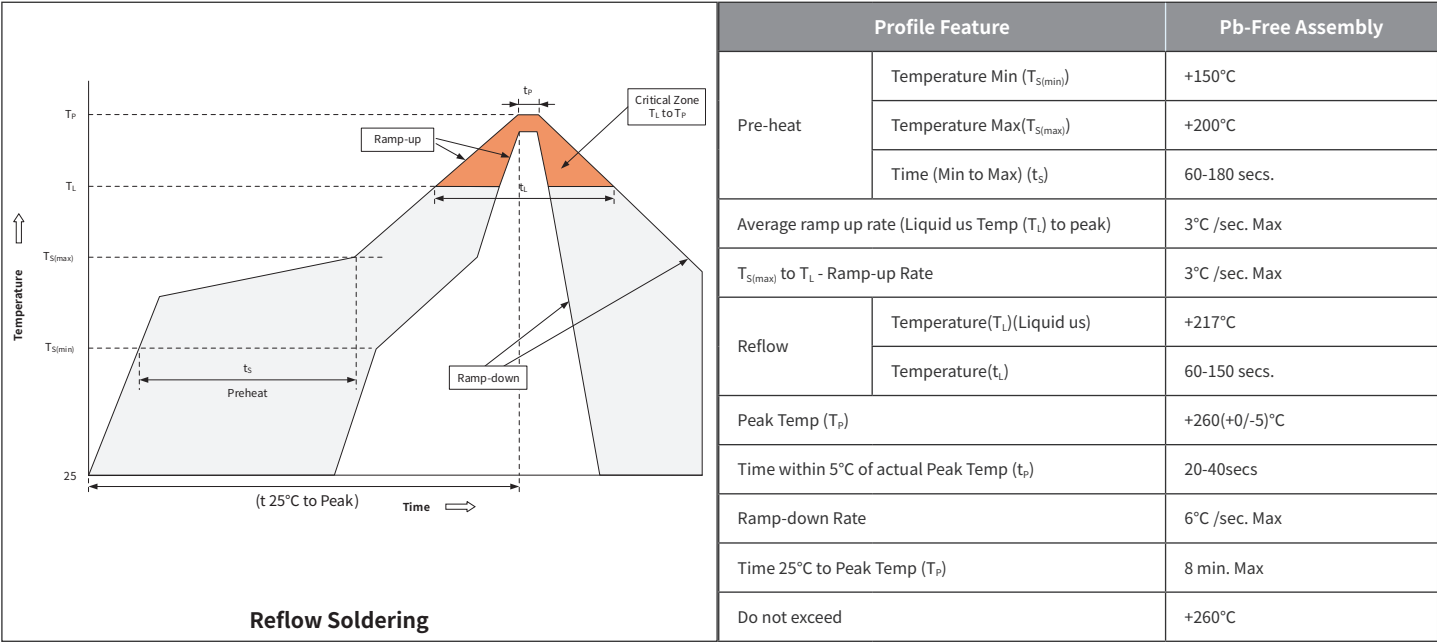
Safety Certification

UL: E465335
3-Electrode Gas Discharge Tubes, Model(s):
3RxxxA-5S where xxx is 075, 090 or 150.

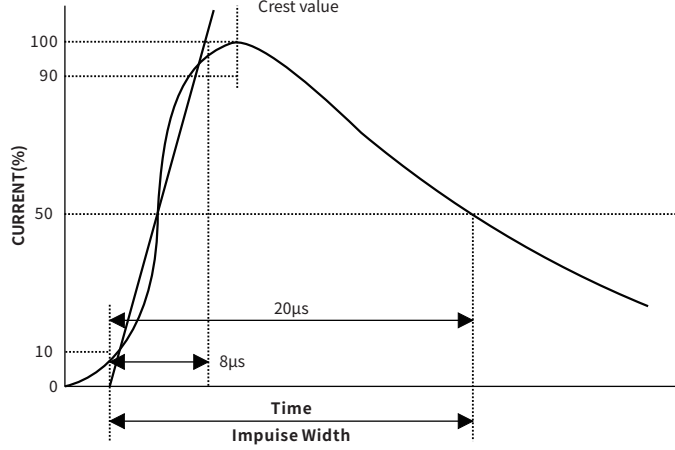
● Electrical Characteristics (Ta=25°C Unless otherwise specified)

Part Number	Marking	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Nominal Impulse Discharge Current@8/20μs	Alternating Discharge Current @8/20μs	Impulse Life@ 10/1000μs	Minimum Insulation Resistance		Maximum Capacitance
		100V/S	1000V/μs	±5times	50Hz,1sec 10 times	100A	Test Voltage	GΩ	1MHz
		(V)	(V)	(KA)	(A)	(times)	DC(V)		(pF)
3R075A-5S	R+O 075A-5S	75±20%	600	5	5	300	25	1	1.5
3R090A-5S	R+O 090A-5S	90±20%	600	5	5	300	50	1	1.5
3R150A-5S	R+O 150A-5S	150±20%	600	5	5	300	100	1	1.5
3R200A-5S	R+O 200A-5S	200±20%	700	5	5	300	100	1	1.5
3R230A-5S	R+O 230A-5S	230±20%	700	5	5	300	100	1	1.5
3R250A-5S	R+O 250A-5S	250±20%	700	5	5	300	100	1	1.5
3R350A-5S	R+O 350A-5S	350±20%	900	5	5	300	100	1	1.5
3R400A-5S	R+O 400A-5S	400±20%	950	5	5	300	100	1	1.5
3R420A-5S	R+O 420A-5S	420±20%	950	5	5	300	100	1	1.5
3R470A-5S	R+O 470A-5S	470±20%	1000	5	5	300	250	1	1.5
3R600A-5S	R+O 600A-5S	600±20%	1200	5	5	300	250	1	1.5
3R800A-5S	R+O 800A-5S	800±20%	1500	5	5	300	250	1	1.5

● Recommended Soldering Conditions

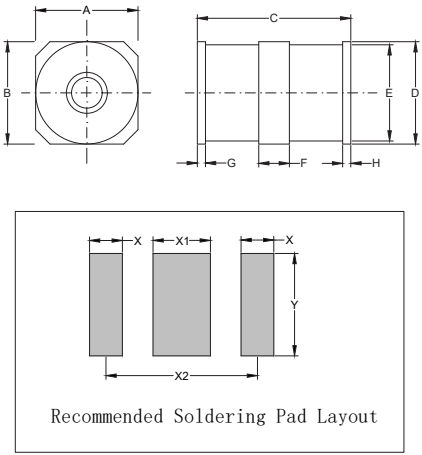


Electrical Ratings

Items	Test Condition/Description	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt=100V/s$	To meet the specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp $dv/dt=1000V/\mu s$.	
Impulse Discharge Current	Maximum $8/20\mu s$ 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.	To meet the specified value
Capacitance	The capacitance of gas tube shall be measured between two electrodes. Test frequency: 1MHz	

Physical Dimensions & Recommended Pad Layout

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.8	5.2	0.189	0.205
B	4.8	5.2	0.189	0.205
C	7.2	7.8	0.283	0.307
D	4.8	5.2	0.189	0.205
E	4.6	4.8	0.181	0.189
F	1.4	1.6	0.055	0.063
G	0.3	0.5	0.012	0.020
H	0.3	0.5	0.012	0.020



Recommended Soldering Pad Layout

● Ordering Information

SERIES	SIZE(mm)	DELIVERY MODE	MPQ(PCS)	BOX(PCS)
3R-5S	Φ5×5×7.5	13" REEL	1,000	3,000

● Packaging Information

Symbol	Dimensions(mm)	
	Millimeters	Inches
W	16±0.3	0.63±0.012
A0	5.4±0.1	0.213±0.004
B0	8.4±0.1	0.331±0.004
K0	5.3±0.1	0.209±0.004
P	12±0.1	0.472±0.004
F	7.5±0.1	0.295±0.004
E	1.75±0.1	0.069±0.004
D	1.5±0.1	0.059±0.004
P0	4.0±0.1	0.157±0.004
P2	2.0±0.1	0.079±0.004
T	0.4±0.1	0.016±0.004