

Gas Discharge Tube (GDT) Data Sheet

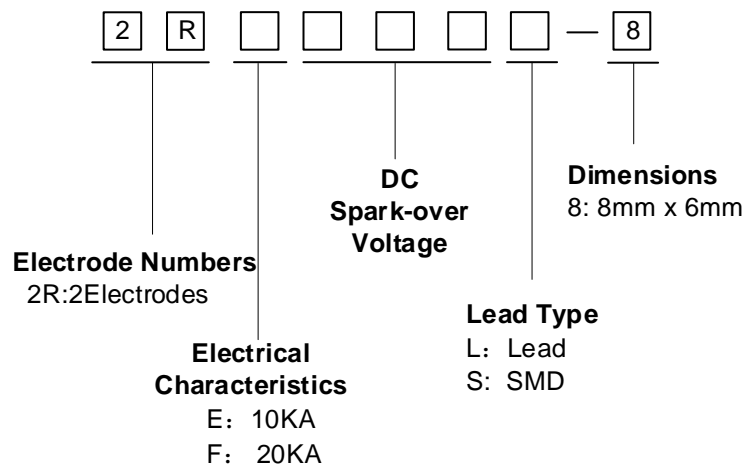
Features

- Provide ultra-fast response to surge voltage from slow-rising surge of 100V/s to rapid-rising surge of 1KV/μs
- Low capacitance ($\leq 1.5\text{pF}$)
- High holdover voltage
- Stable breakdown voltage
- Large absorbing transient current capability
- Surface mounted gas arrester
- Micro-Gap Design
- Operating and Storage Temperature : $-40^{\circ}\text{C} \sim +125^{\circ}\text{C}$
- Meets MSL Level 1, per J-STD-020

Applications

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

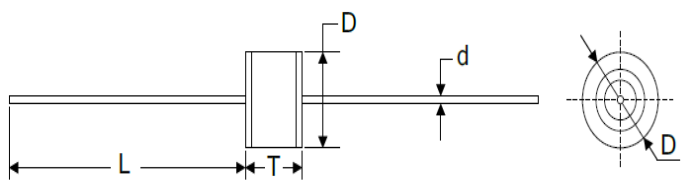
Part Number Code



Electrical Characteristics

Part Number	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Impulse Life Test	Minimum Insulation Resistance		Maximum Capacitance	Nominal Impulse Discharge Current	Alternating Discharge Current	Device Marking Code
	100V/S	1KV/us	10/1000us 100A	Test Voltage	(GΩ)	(1MHz 1V)	8/20us	50Hz,1S	
	(v)	(v)	(times)	DC(V)		(pF)	(KA)	(A)	
2RE1000L-8V	1000±20%	1800	300	250	1	1.5	10	10	2RE1000-8

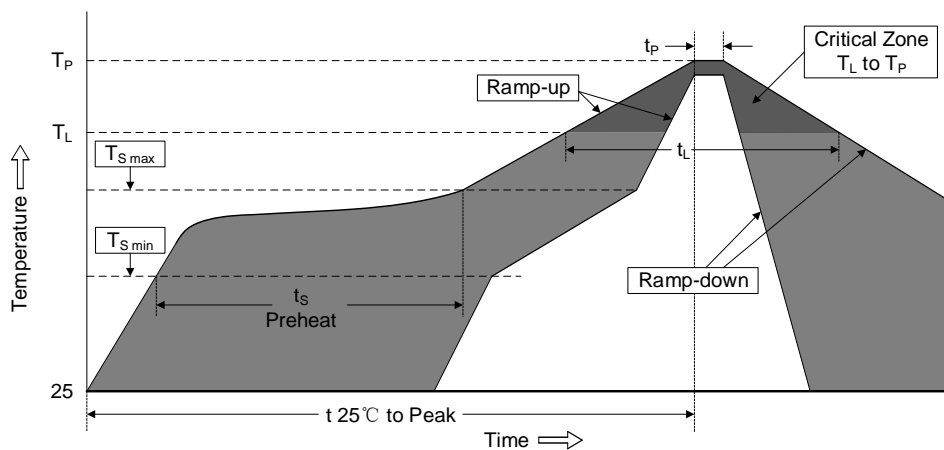
Dimensions



Symbol	Dimension (mm)
D	8.00±0.50
T	6.00±0.50
d	0.80±0.10
L	30 max.

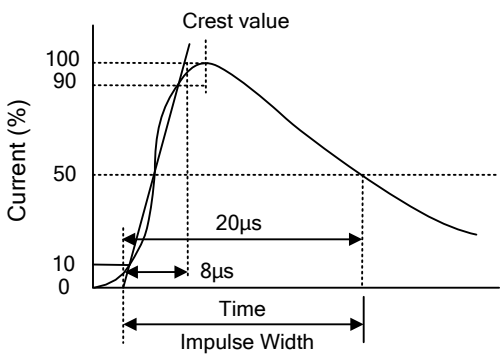
Soldering Recommendation

Reflow Soldering



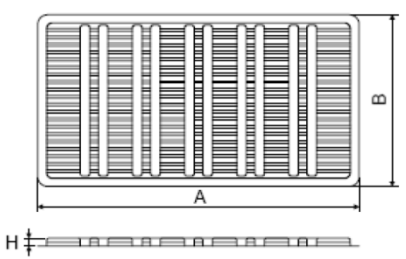
Profile Feature	Pb-Free Assembly
Average ramp-up rate (TL to TP)	3°C/second max.
Preheat	
-Temperature Min (TS min)	150°C
-Temperature Max (TS max)	200°C
-Time (min to max)(ts)	60-180 seconds
TS max to TL	
-Ramp-up Rate	3°C/second max.
Time maintained above:	
-Temperature (TL)	217°C
-Time (tL)	60-150 seconds
Peak Temperature (TP)	260°C
Time within 5 °C of actual Peak Temperature (tp)	20-40 seconds
Ramp-down Rate	6°C/second max.
Time 25°C to Peak Temperature	8 minutes max.

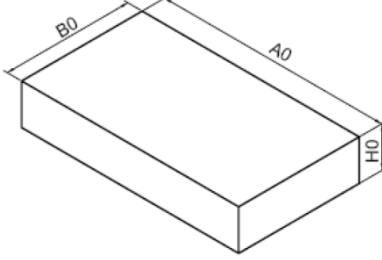
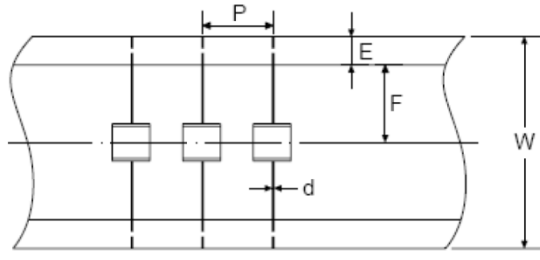
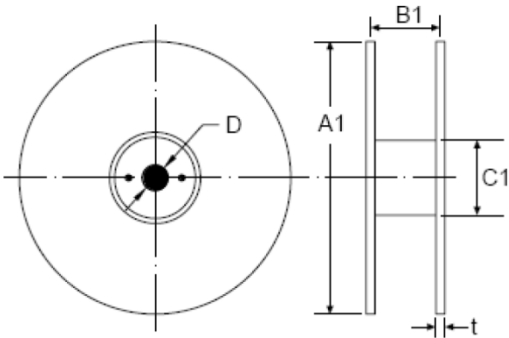
Electrical Ratings

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 $dv/dt=1000V/\mu s$.	
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	
Impulse Discharge Current	<p>Maximum 8/20μs surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time, without causing the DC spark-over voltage to change more than 25% from its initial value.</p> 	
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 sec. for 10 times with interval time 3 min. DC spark-over voltage shall not change more than $\pm 25\%$ from its initial value. $IR > 10^8$ ohms (-20%, +30% for 70~90V).	

Packaging

Axial Packing

Sking packing 	Symbol	Dimension (mm)
	A	265 \pm 5.0
	B	146 \pm 5.0
	H	8.5 \pm 0.5
Quantity:100pcs		
Inner box	A0	270 \pm 2.0

	B0	150 ± 2.0
	H0	50 ± 2.0
	Quantity: 500pcs	
<p>Tape</p> 	P	10.0 ± 0.5
	W	65.0 ± 1.0
	E	6.0 ± 0.5
	F	26.5 ± 0.5
	d	0.8 ± 0.1
	<p>Reel</p> 	A1
B1		70.0 ± 2.0
C1		82.0 ± 2.0
D		25.0 ± 0.5
t		2.0 ± 0.2
Quantity: 800pcs		