



2R-8 Series (Gas Discharge Tubes)

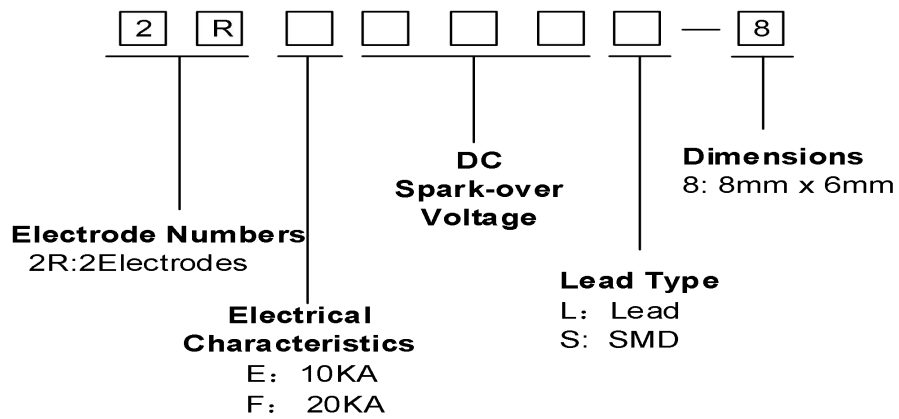
Features

- Provide ultra-fast response to surge voltage from slow-rising surge of 100V/s to rapid-rising surge of 1KV/ μ s
- Low capacitance (≤ 1.5 pF)
- High holdover voltage
- High insulation resistance
- Stable breakdown voltage
- Large absorbing transient current capability
- Micro-Gap Design
- Operating and Storage Temperature : -40°C - +125°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





2R-8 Series (Gas Discharge Tubes)

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	8/20us 100A	Test Voltage	(GΩ)	(1MHz 1V)	8/20us	50Hz, 1S	
		(v)	(v)	(times)	DC (V)		(pF)	(KA)	(A)	
2RE075L-8	2RE075S-8	75±20%	600	500	25	1	1.5	10	10	2RE075-8
2RE090L-8	2RE090S-8	90±20%	600	500	50	1	1.5	10	10	2RE090-8
2RE120L-8	2RE120S-8	120±20%	600	500	50	1	1.5	10	10	2RE120-8
2RE150L-8	2RE150S-8	150±20%	700	500	100	1	1.5	10	10	2RE150-8
2RE230L-8	2RE230S-8	230±20%	700	500	100	1	1.5	10	10	2RE230-8
2RE250L-8	2RE250S-8	250±20%	800	500	100	1	1.5	10	10	2RE250-8
2RE300L-8	2RE300S-8	300±20%	900	500	100	1	1.5	10	10	2RE300-8
2RE350L-8	2RE350S-8	350±20%	900	500	100	1	1.5	10	10	2RE350-8
2RE400L-8	2RE400S-8	400±20%	1000	500	100	1	1.5	10	10	2RE400-8
2RE470L-8	2RE470S-8	470±20%	1100	500	250	1	1.5	10	10	2RE470-8
2RE600L-8	2RE600S-8	600±20%	1300	500	250	1	1.5	10	10	2RE600-8
2RE800L-8	2RE800S-8	800±20%	1500	500	250	1	1.5	10	10	2RE800-8

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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	8/20us 100A	Test Voltage	(GΩ)	(1MHz 1V)	8/20us	50Hz, 1S	
		(v)	(v)	(times)	DC (V)		(pF)	(KA)	(A)	
2RF075L-8	2RF075S-8	75±20%	600	500	25	1	1.5	20	20	2RF075-8
2RF090L-8	2RF090S-8	90±20%	600	500	50	1	1.5	20	20	2RF090-8
2RF120L-8	2RF120S-8	120±20%	600	500	50	1	1.5	20	20	2RF120-8
2RF150L-8	2RF150S-8	150±20%	700	500	100	1	1.5	20	20	2RF150-8
2RF230L-8	2RF230S-8	230±20%	700	500	100	1	1.5	20	20	2RF230-8
2RF250L-8	2RF250S-8	250±20%	800	500	100	1	1.5	20	20	2RF250-8
2RF300L-8	2RF300S-8	300±20%	900	500	100	1	1.5	20	20	2RF300-8
2RF350L-8	2RF350S-8	350±20%	900	500	100	1	1.5	20	20	2RF350-8
2RF400L-8	2RF400S-8	400±20%	1000	500	100	1	1.5	20	20	2RF400-8
2RF470L-8	2RF470S-8	470±20%	1100	500	250	1	1.5	20	20	2RF470-8
2RF600L-8	2RF600S-8	600±20%	1300	500	250	1	1.5	20	20	2RF600-8
2RF800L-8	2RF800S-8	800±20%	1500	500	250	1	1.5	20	20	2RF800-8



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Dimensions

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

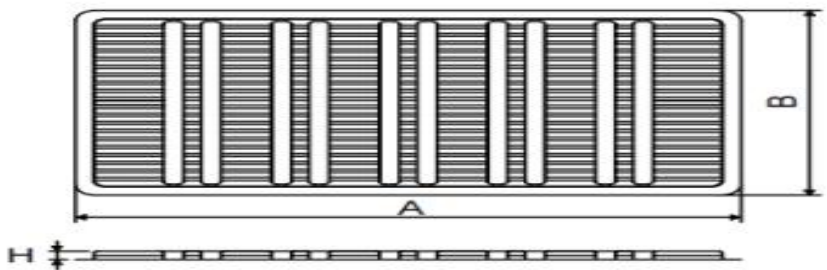
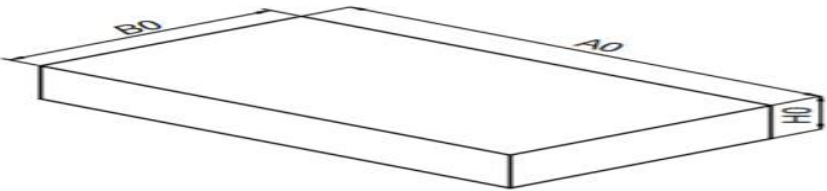
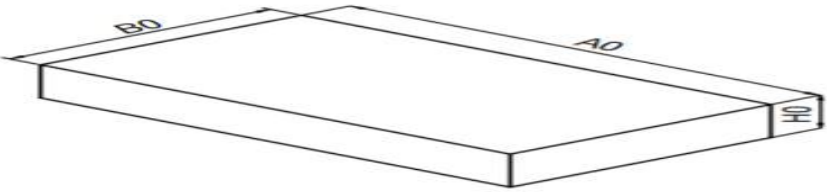
Recommended Pad Size

Electrical Ratings

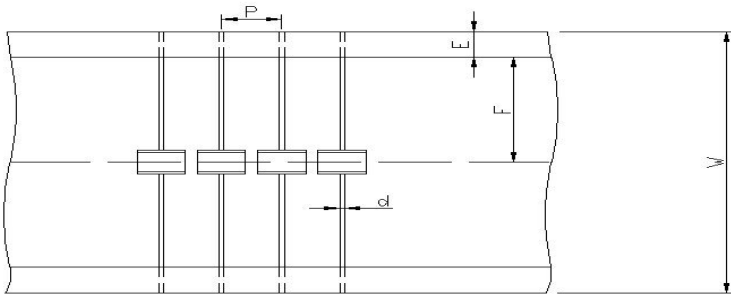
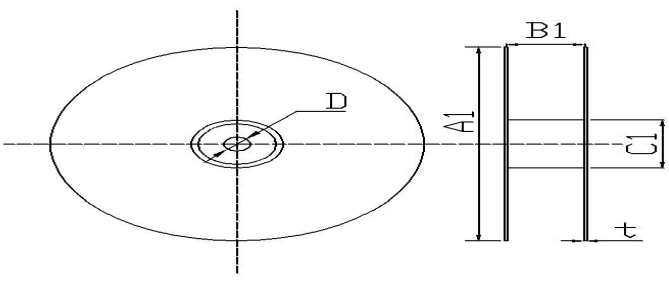
Items	Test Condition/Description	Requirement
DC spark-over voltage	The voltage is measured with voltage ramp $dv/dt=100V/s$.	To meet the Specified value
Maximum Impulse Spark-over Voltage	The maximum impulse spark-over voltage is measured with voltage ramp $dv/dt=1000V/\mu s$.	
Insulation Resistance	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	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, without causing the DC spark-over voltage to change more than 25% from its initial value. 	
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).	

Axial Packing (Bulk)

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100pcs/Board		Dimension (mm)		
		Symbol	Spec.	Tolerance
		A	238	± 1.0
		B	152	± 1.0
		H	10	± 0.5
500pcs/Box		A0	252	± 2.0
		B0	160	± 2.0
		H0	66	± 1.0
1300pcs/ Box		A0	252	± 2.0
		B0	165	± 2.0
		H0	130	± 1.0

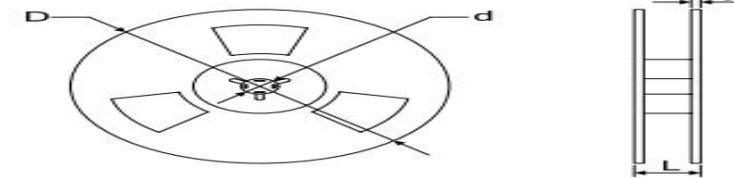
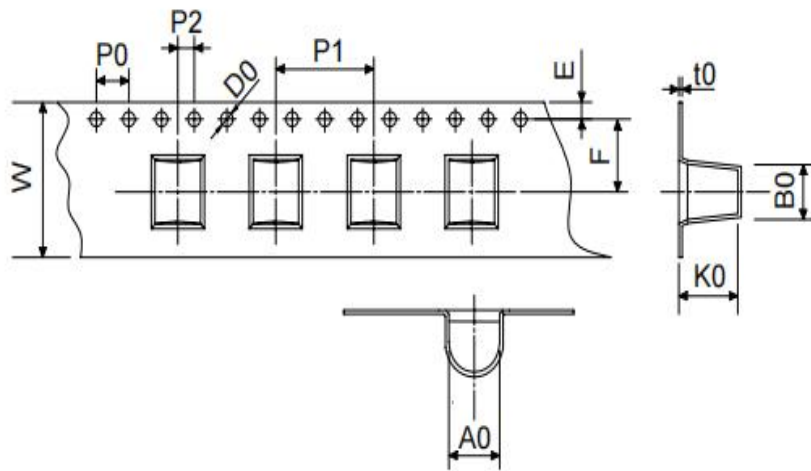
Axial Packing (Tape & Reel)

	Symbol	Dimension (mm)
		P
	W	65.0 ± 1.0
	E	6.0 ± 0.5
	F	26.5 ± 0.5
	d	0.8 ± 0.1
	A1	330.0 ± 2.0
	B1	70.0 ± 2.0
	C1	82.0 ± 2.0
	D	25.0 ± 0.5
	t	2.0 ± 0.2
	Quantity: 800pcs	

SMD Packing (Tape & Reel)

FTR

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Symbol	Dimension (mm)	
	Spec.	Tolerance
W	16.00	± 0.20
P0	4.00	± 0.10
P1	12.00	± 0.20
P2	2.00	± 0.10
D0	1.55	± 0.05
E	1.75	± 0.10
F	7.50	± 0.10
A0	8.20	± 0.10
K0	8.50	± 0.10
B0	7.50	± 0.10
t0	0.50	± 0.10
D	330.00	± 0.10
d	13.00	± 0.50
L	20.00	± 0.50
t	2.00	± 0.20

Quantity: 600pcs