

Gas Discharge Tubes

2 Electrode Standard Series and High Voltage Series (2R)

Part Numbering System | Specifications | Dimensions

Part Numbering System

WPGT - 2R 800 B 8 L C TA
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① World Products Gas Discharge Tubes

② Series Code

2R = 2 Electrode Standard Series and High Voltage Series

③ DC Breakdown Voltage (Please reference specification to determine available voltage options for each series.)

70 = 70V	600S = 600V – 2R Standard Series Only
75 = 75V	800S = 800V – 2R Standard Series Only
90 = 90V	600 = 600V – 2R High Voltage Series Only
120 = 120V	800 = 800V – 2R High Voltage Series Only
130 = 130V	1000 = 1000V
145 = 145V	1200 = 1200V
180 = 180V	1400 = 1400V
230 = 230V	1600 = 1600V
250 = 250V	2000 = 2000V
300 = 300V	2500 = 2500V
350 = 350V	2700 = 2700V
400 = 400V	3000 = 3000V
470 = 470V	3500 = 3500V
	3600 = 3600V
	4000 = 4000V
	4500 = 4500V
	5000 = 5000V
	6000 = 6000V

④ Diameter (“D” Dimension)

B = 8mm

⑤ Length (“T” Dimension)

6 = 6mm
8 = 8mm – High Voltage Series Only

⑥ Lead Type

B = No Leads
L = Axial lead (0.8mm lead diameter)
L1 = Axial lead (1.0mm lead diameter)
A1 = Radial lead (0.8mm lead diameter)
B1 = Radial lead (1.0mm lead diameter)
C1 = Radial lead Clip -in style (1.0mm lead diameter)
D1 = Radial Lead Clip -in style (0.8mm lead diameter)

⑦ Low Capacitance

(Only applicable for 2R & 2N, 70V – 145V)
C = Low capacitance of 0.8pf

⑧ Taping Specifications

TA = Taped (Ammo Box)
TR = Tape & Reel

Specifications

2 Electrode Standard Series (2R)

Base Part Number	DC Breakdown Voltage (V)	Maximum Impulse Breakdown Voltage (V)		Maximum Impulse Discharge Current (8/20 μ s) (KA)		Alternating Discharge Current (A)		Impulse Life (10/1000μ s) (100A)	DC Holdover Voltage (V)	Minimum Insulation Resistance (G?)	Maximum Capacitance (pf)
	(100V/s)	100V/μ s	1000V/μ s	1 time	10 times (5 times each polarity)	50Hz, 1 sec	Single 9 cycles	times	<150ms	*	1MHz
WPGT-2R70	70 ± 20%	500	600						52	10	1.5**
WPGT-2R75	75 ± 20%	500	600						52	10	1.5**
WPGT-2R90	90 ± 20%	500	600						52	10	1.5**
WPGT-2R120	120 ± 15%	500	700						52	10	1.5**
WPGT-2R130	130 ± 15%	500	700						52	10	1.5**
WPGT-2R145	145 ± 15%	500	700						52	10	1.5**
WPGT-2R180	180 ± 15%	500	700	15	10	10	65	500	80	10	1.5
WPGT-2R230	230 ± 15%	500	700						80	10	1.5
WPGT-2R250	250 ± 15%	500	700						80	10	1.5
WPGT-2R300	300 ± 15%	700	900						150	10	1.5
WPGT-2R350	350 ± 15%	700	900						150	10	1.5
WPGT-2R400	400 ± 15%	800	1000						150	10	1.5
WPGT-2R470	470 ± 15%	1000	1200						150	10	1.5
WPGT-2R600S	600 ± 20%	1100	1400						150	10	1.5
WPGT-2R800S	800 ± 20%	1300	1700	10	5	10	65	300	150	10	1.5

UL497B Recognized, File # E135015

*DC Breakdown Voltage DC Measuring Voltage
70-90V 50V
120-400V 100V
470-800V 250V

** May be offered with 0.8pf capacitance rating.
See part numbering system for special coding.

2 Electrode High Voltage Series (2R)

Base Part Number	DC Breakdown Voltage (V)	Maximum Impulse Breakdown Voltage (V)		Maximum Impulse Discharge Current (8/20 μ s) (KA)		Alternating Discharge Current (A)		Impulse Life (10/1000μ s) (100A)	Minimum Insulation Resistance (G?)	Maximum Capacitance (pf)
	100V/s	100V/μ s	1000V/μ s	1 time	10 times (5 times each polarity)	50Hz, 1 sec	Single 9 cycles	times	*	1MHz
WPGT-2R600	600 ±15%	1000	1100	10	5	10	65	500	10	1.5
WPGT-2R800	800 ±15%	1100	1200	10	5	10	65	500	10	1.5
WPGT-2R1000	1000 ±20%	1300	1400	10	5	10	65	300	10	1.0
WPGT-2R1400	1400 ±20%	2100	2200	5	2.5	2.5	5	100	10	1.0
WPGT-2R1600	1600 ±20%	2300	2400	5	2.5	2.5	5	100	10	1.0
WPGT-2R2000	2000 ±20%	2700	2800	5	2.5	2.5	5	100	10	1.0
WPGT-2R2500	2500 ±20%	3500	3600	5	2.5	2.5	5	100	10	1.0
WPGT-2R2700	2340-2970	3600	?3800	5	3***	2.5	5	300**	10	1.0
WPGT-2R3000	3000 ± 20%	4100	4200	5	2.5	2.5	5	300**	10	1.0
WPGT-2R3500	3500 ± 20%	4900	5000	5	3	2.5	5	100	10	1.0
WPGT-2R4000	4000 ± 20%	5300	5500	5	3	2.5	5	100	10	1.0
WPGT-2R4500	4500 ± 20%	5800	6000	5	3	2.5	5	100	10	1.0
WPGT-2R5000	5000 ± 20%	6000	6400	5	3	2.5	5	100	10	1.0
WPGT-2R6000	6000 ±20%	7000	7800	5	3	2.5	5	100	10	1.0

UL 1449 and C-UL 3rd Edition Recognized, File #E321567 . WPGT-2R2700 is additionally C -UL & UL 1414 Recognized, File #E71602, Complies to VDE Gap requirements and MIL -STD-202, Method 106 (Moisture resistance).

*DC Breakdown Voltage DC Measuring Voltage
600-1000V 250V
1400-2000V 500V
2500-6000VV 1000V

**Measured with an 8/20 μ s waveform, 100A.
***For WPGT -2R2700 rating is 3KA (10 times each polarity).

DC Breakdown voltage is measured at 5kV/s.

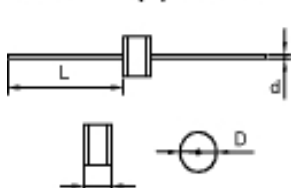
Dimensions

2 Electrode Standard Series (2R)

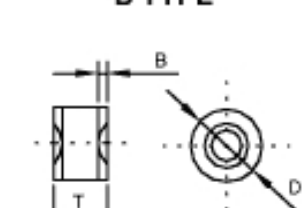
Unit: mm

Item	Dimensions
D	8.0 ±0.3
T	6.0 ±0.3
d	0.8 or 1.0 ±0.05
L	24 Min.

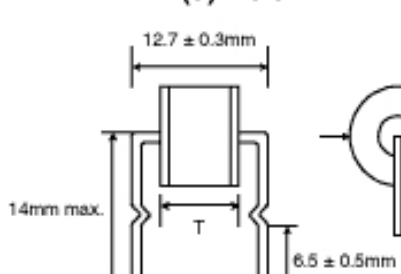
L TYPE (d) = 0.8mm
L1 TYPE (d) = 1.0mm



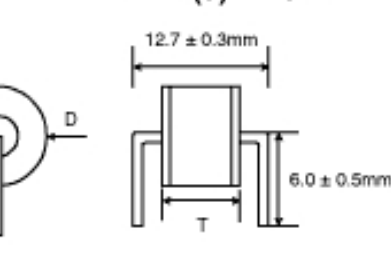
B TYPE



C1 TYPE (d) = 1.0mm
D1 TYPE (d) = 0.8mm



A1 TYPE (d) = 0.8mm
B1 TYPE (d) = 1.0mm

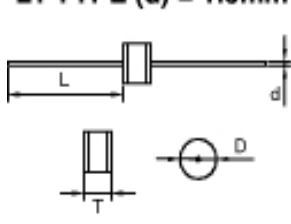


2 Electrode High Voltage Series (2R)

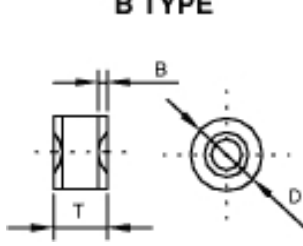
Unit: mm

Item	Dimensions
D	8.0 ±0.3
T	8.0 +0.6, -0.1
d	0.8 or 1.0 ±0.05
L	24 Min.

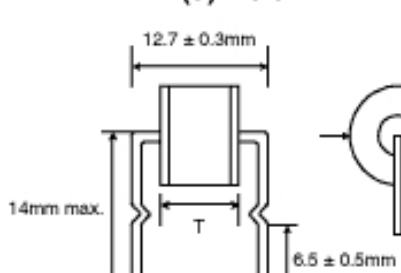
L TYPE (d) = 0.8mm
L1 TYPE (d) = 1.0mm



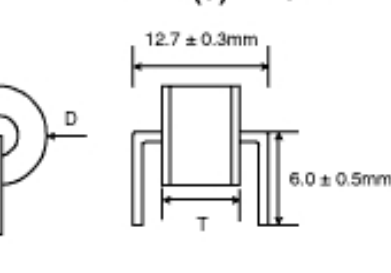
B TYPE



C1 TYPE (d) = 1.0mm
D1 TYPE (d) = 0.8mm



A1 TYPE (d) = 0.8mm
B1 TYPE (d) = 1.0mm



Gas Discharge Tubes

General Characteristics

Features

Temperature Rating
100% Inspection
RoHS Information
Solderability
Part Marking
Terms and Definitions

2 Electrode Mini (2RM)

2 Electrode Standard and High Voltage (2R)
2 Electrode High Current (2N)
2 Electrode Extremely High Current Series (20B)
2 Electrode Switching Series (2T)
3 Electrode Mini (3RM) and Standard (3R) Series
2 Electrode Surface Mount Mini (2SM), Surface Mount (2S), Surface Mount Mini Square (2SS) and Surface Mount Chip (4532) Series
3 Electrode Surface Mount Mini (3SM and 3SSM) Series

Packaging

Standard Bulk Packaging
Tape & Reel Specifications

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