

	Control date	<b>Gas Discharge Tube</b>	Document No.	ABS-23-002.07
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**2 Elements Surface Mount Standard Series**

**(2S & 2SS) Ø6.2mm ,4.2mm long**

**1.0. Specification tabl**

Model Name	DC Breakdown Voltage	Maximum Impulse Breakdown Voltage		Maximum Impulse Discharge Current ( 8/20µs )		Alternating Discharge Current		Impulse Life	DC Holdover Voltage	Minimum Insulation Resistance	Maximum Capacitance ( 1MHz )
	(100~2000V/S)	100V/µs	1KV/µs	1 time	10 times	50Hz, 1Sec	Single 9cycles	100A	<150ms	Note4	
	(V)	(V)	(V)	(KA)		(A)		(times)	(V)	(GΩ)	
2S-1000	1000±20%	1500	1600	5	3	3	10	300 (8/20µs)	150	Note4	
2S-1200	1200±20%	1700	1800						150		
2S-1800	1800±20%	2800	3000						150		
2S-2000	2000±20%	3000	3200						150		
2S-2500	2500±20%	3100	3300						150		
2S-2700	2700±20%	3400	3800						150		
2S-3000	3000±20%	3600	4000						150		

Note1 : UL497B Recognized, File E223314;

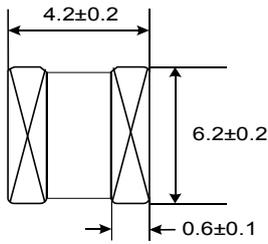
Note2 : UL1449 UL 4th Recognized, File E315423 (800V~3000V)

Note3 : The 2S is round and 2SS is square

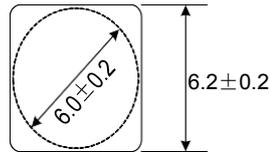
Note4: Insulation resistance test condition:

DC Breakdown Voltage	DC Measuring Voltage
70-150V	50V
151-400V	100V
401-1000V	250V
1001-2000V	500V
>2001V	1000V

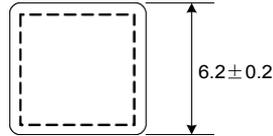
**2.0. Dimensions(mm)**



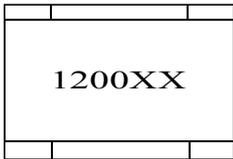
Round Type



Square Type



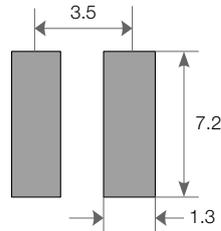
**3.0. Marking**



1200=DC Breakdown Voltage  
XX=2 Digit Date Code YM

2S

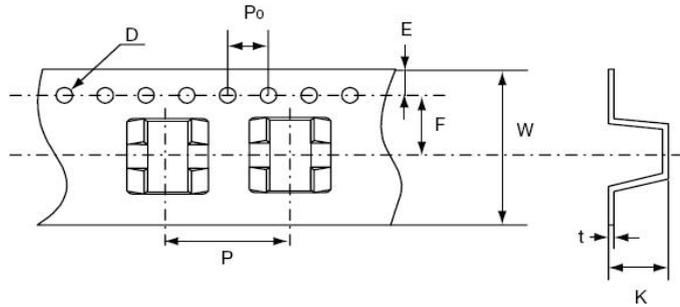
**4.0. Recommended Pad Size(mm)**



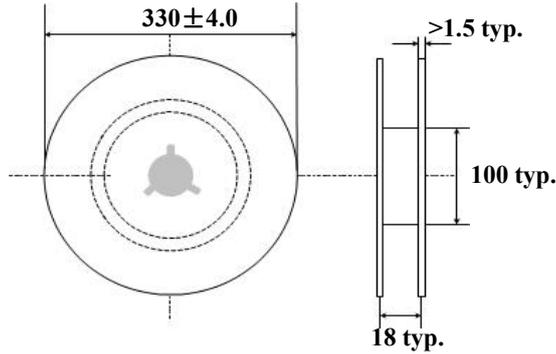
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**5.0. Package Description**

Item	Spec(mm)
P	12.0±0.1
P0	4.0±0.1
W	16.0±0.3
F	7.5±0.1
E	1.75±0.1
D	Φ1.55±0.05
K	6.7±0.1
t	0.5±0.05



Tape Reel	
Dimensions(mm)	Quantity(Pcs)
As Figure	800
335x335x65	2400
360x360x360	12000



**6.0. Warehouse storage condition tested shall be connected to a ground plane**

Item	Test Condition / Description	Requirement	
DC Breakdown Voltage	The voltage measured at a rise time of 100~2000V/s	To meet the specified value	
Maximum Impulse Breakdown Voltage	The maximum breakdown voltage at rise times of 100v/us and 1000v/us.		
Maximum Impulse Discharge Current	The maximum current applying a waveform of 8/20us that can be applied across the terminals of the gas tube without causing the gas tube to change more than ±25% from its initial measured DC breakdown voltage. Dwell time between pulses is 3 minutes.		
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 sec. 10 times. Intervals: 3min. DC breakdown voltage may not change more than ±25% from its initial measured DC breakdown voltage. IR > 10 <sup>8</sup> ohms (-20%, +30% for 70 – 90V).		
Impulse Life	The minimum number of impulses of a specified waveform and peak current which a gas tube will conduct without causing the gas tube to change more than ±25% from its initial measured DC breakdown voltage. Dwell time between pulses is 1-2 minutes.		
DC Holdover Voltage	The maximum DC voltage across the two terminals of the gas tube under which it may be expected to return to the high impedance state after the gas tube breakdown.		
Minimum Insulation Resistance	The resistance of the gas tube shall be measured each terminal to each other terminal.		
	DC Breakdown Voltage		DC Measuring Voltage
	70-150V	50V	
	151-400V	100V	
	401-1000V	250V	
Maximum Capacitance	The capacitance of a gas tube shall be measured each terminal to each other terminal. Test frequency: 1MHz In measurements involving 3-electrode gas tubes, the terminal not being		
	1001-2000V	500V	
	>2001V	1000V	