

Gas Discharge Tube

6.2x4.2mm 2 Poles Square End

MGT6-2S Series

MERITEK

FEATURE

- Ultra-Fast Surge Response
- High Surge Current Capability
- High Holder Voltage, High Insulation Resistance
- Low capacitance ($\leq 1\text{pF}$), Micro-Gap Design
- Applications: Repeaters, Modems, Telephone Interface, Line Cards, Data Communication Equipment, Line Test Equipment
- UL Safety Approved Certification No: E223045

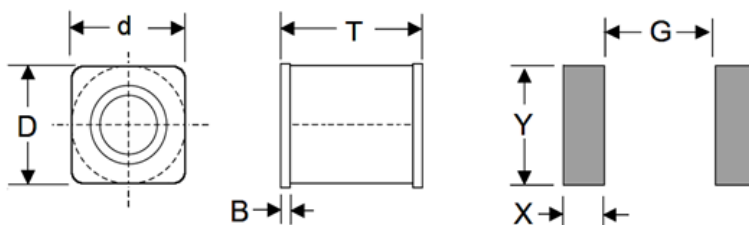


ELECTRICAL CHARACTERISTICS

Part Number	DC Spark-over Voltage	Impulse Spark-over Voltage	Impulse Discharge Current	Alternating Discharge Current	Impulse Life	Minimum Insulation Resistance		Maximum Capacitance
	100V/s	1KV/ μs	8/20 μs , 10times	50Hz, 1sec	10/1K μs , 100A	V_T	IR	1MHz/1V
6.2x4.2mm	(V)	(V)	(KA)	(A)	(Times)	(V _{DC})	(G Ω)	(pF)
MGT6L075MCB2S	75 $\pm 20\%$	700	5	5	500	25	1	1
MGT6L090MCB2S	90 $\pm 20\%$	700	5	5	500	50	1	1
MGT6L145MCB2S	145 $\pm 20\%$	700	5	5	500	100	1	1
MGT6L150MCB2S	150 $\pm 20\%$	700	5	5	500	100	1	1
MGT6L230MCB2S	230 $\pm 20\%$	650	5	5	500	100	1	1
MGT6L250MCB2S	250 $\pm 20\%$	650	5	5	500	100	1	1
MGT6L300MCB2S	300 $\pm 20\%$	700	5	5	500	100	1	1
MGT6L350MCB2S	350 $\pm 20\%$	750	5	5	500	100	1	1
MGT6L400MCB2S	400 $\pm 20\%$	800	5	5	500	100	1	1
MGT6L470MCB2S	470 $\pm 20\%$	900	5	5	500	250	1	1
MGT6L600MCB2S	600 $\pm 20\%$	1000	5	5	500	250	1	1
MGT6L800MCB2S	800 $\pm 20\%$	1200	5	5	500	250	1	1
MGT6K102MCB2S	1000 $\pm 20\%$	1600	3	3	300	500	1	1
MGT6K122MCB2S	1200 $\pm 20\%$	1800	3	3	300	500	1	1
MGT6K182MCB2S	1800 $\pm 20\%$	2600	3	3	300	500	1	1

Note: Operating Temperature: -40°C ~ +85°C

DIMENSIONS AND RECOMMENDATION PAD



Unit: mm

Series	D	d	T	B	G	X	Y
MGT6-2S	6.2 ± 0.2	6.2 ± 0.2	4.2 ± 0.2	0.6 ± 0.1	2.2	1.3	7.0

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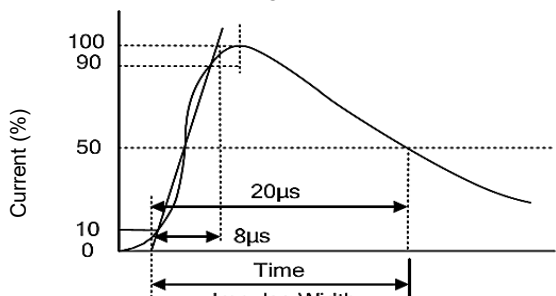
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PART NUMBERING SYSTEM

MGT **6** **L** **075M** **CB2S**
 (1) (2) (3) (4) (5)

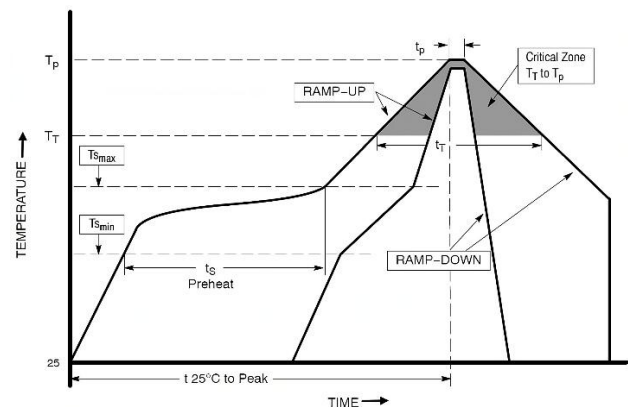
No	Item	Code	Description
(1)	Product Code	MGT	Gas Discharge Tube series
(2)	Size Code	6	6.2mm Diameter
(3)	Discharge Current	L	L: 5KA, 8/20μs, 10 times
(4)	DC Spark Over Voltage	075M	75V ±20%(M)
(5)	Series Code	CB2S	CB2S: 2 Poles Square End

ELECTRICAL RATING

Item	Test Condition	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt = 100V/s$.	
Maximum Impulse Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt = 1000V/\mu s$.	
Impulse Discharge Current	Maximum 8/20 μs 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 measured value. Crest Value 	To meet the specified value
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 second for 10 times with interval time 3 minutes. DC spark-over voltage shall not be changed more than ±25% from its initial value. $IR > 10^8 \Omega$ (-20%, +30% for 70~90V).	
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	

RECOMMENDED SOLDERING PROFILES

Reflow Soldering Condition		
Pre Heat	Temp. Min $T_{s(min)}$	150°C
	Temp. Max $T_{s(max)}$	200°C
	Time (min. to max.) (t_s)	60~180 sec
Average ramp up rate (T_L) to peak		3°C/sec Max.
$T_{s(max)}$ to T_L (Ramp-up rate)		3°C/sec Max.
Reflow	Temp. (T_L)	217°C
	Time (min. to max.) (t_L)	60~150 sec
Peak Temperature (T_p)		260°C
Time within 5°C of Peak Temp (t_p)		20-40 sec
Ramp-down Rate		6°C/sec Max.
Time (25°C to Peak Temp)		8 mins Max.

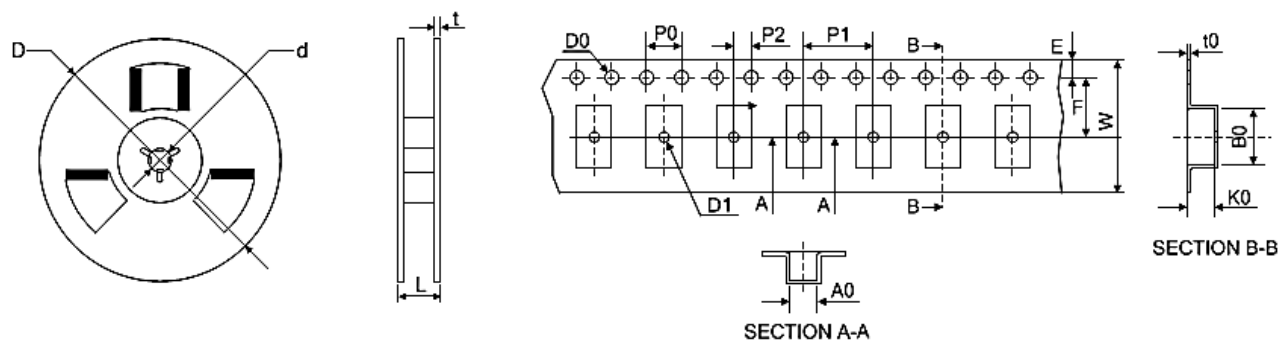


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PACKAGING SPECIFICATION



Unit: mm

Package	D ±2.0	d ±0.5	L ±2.0	t ±0.2	W ±0.2	P0 ±0.1	P1 ±0.1	P2 ±0.1	D0 ±0.05	E ±0.1	F ±0.1	A0 ±0.1	K0 ±0.1	B0 ±0.1	t0 ±0.1	Qty/ Reel
Reel	330	13	20	2	16.0	4.0	12.0	2.0	1.55	1.75	7.5	4.44	6.37	6.48	0.5	800