

Gas Discharge Tube

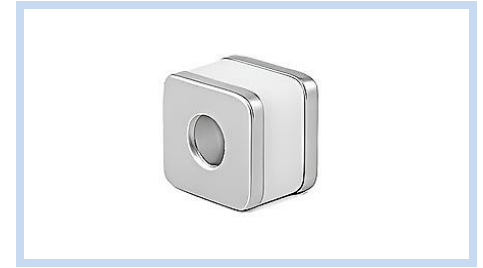
5.4x5.0mm 2 Poles Square End

MGT5-2UT 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

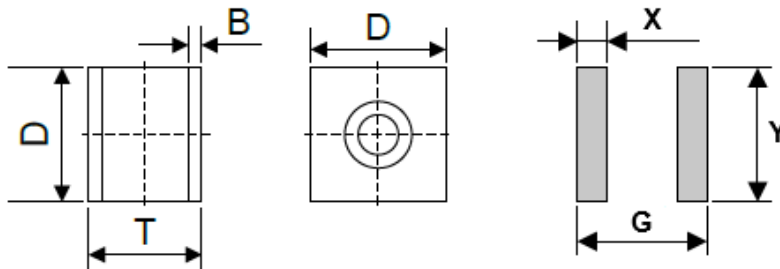


ELECTRICAL CHARACTERISTICS

Part Number	DC Spark-over Voltage	Impulse Spark-over Voltage	Impulse Discharge Current	Alternating Discharge Current	Minimum Insulation Resistance		Maximum Capacitance
	100V/s	1KV/ μs	8/20 μs , 5times	50Hz, 1sec	V_T	IR	1MHz/1V
5.4x5.0mm	(V)	(V)	(KA)	(A)	(V _{DC})	(G Ω)	(pF)
MGT5M075MCB2UT	75 $\pm$ 20%	650	10	5	25	1	1
MGT5M090MCB2UT	90 $\pm$ 20%	700	10	5	50	1	1
MGT5M151MCB2UT	150 $\pm$ 20%	700	10	5	50	1	1
MGT5M231MCB2UT	230 $\pm$ 20%	750	10	5	100	1	1
MGT5M251MCB2UT	250 $\pm$ 20%	750	10	5	100	1	1
MGT5L301MCB2UT	300 $\pm$ 20%	800	5	5	100	1	1
MGT5L351MCB2UT	350 $\pm$ 20%	900	5	5	100	1	1
MGT5L401MCB2UT	400 $\pm$ 20%	1000	5	5	100	1	1
MGT5L471MCB2UT	470 $\pm$ 20%	1100	5	5	250	1	1
MGT5L601MCB2UT	600 $\pm$ 20%	1500	5	5	250	1	1
MGT5L801MCB2UT	800 $\pm$ 20%	1800	5	5	250	1	1
MGT5L102MCB2UT	1000 $\pm$ 20%	2000	5	5	500	1	1
MGT5K122MCB2UT	1200 $\pm$ 20%	2400	3	3	500	1	1
MGT5K152MCB2UT	1500 $\pm$ 20%	2800	3	3	500	1	1

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

DIMENSIONS AND RECOMMENDATION PAD



Unit: mm

Series	D	T	B	X	Y	G
MGT5-2UT	5.4 $\pm$ 0.2	5.0 $\pm$ 0.2	0.5 $\pm$ 0.2	1.5	5.4	6.5

Gas Discharge Tube

5.4x5.0mm 2 Poles Square End

MGT5-2UT Series

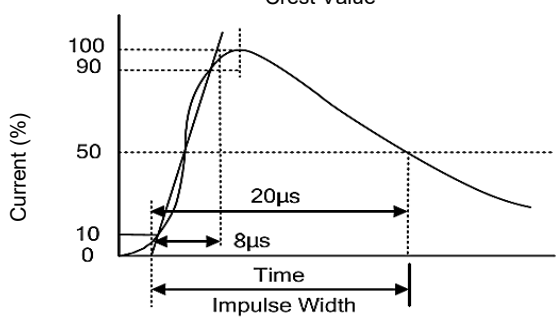
MERITEK

PART NUMBERING SYSTEM

MGT **5** **L** **301M** **CB2UT**
 (1) (2) (3) (4) (5)

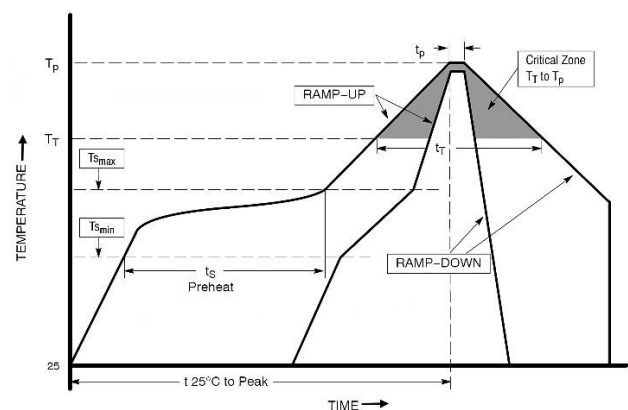
No	Item	Code	Description
(1)	Product Code	MGT	Gas Discharge Tube Series
(2)	Size Code	5	5.4mm Diameter
(3)	Discharge Current	L	5KA, 8/20μs, 10 times
(4)	DC Spark Over Voltage	301M	300V ±20%(M)
(5)	Series Code	CB2UT	CB2UT: 2 Poles Square End

ELECTRICAL RATING

Item	Test Condition	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt = 100V/s$.	To meet the specified value
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 	
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 second for 10 times with interval time 3 minutes.	
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.

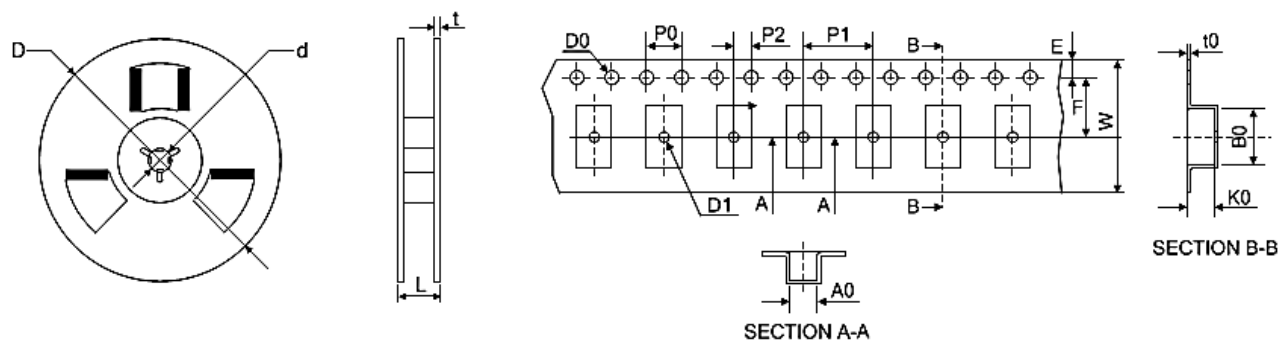


Gas Discharge Tube
5.4x5.0mm 2 Poles Square End

MGT5-2UT Series

MERITEK

PACKAGING SPECIFICATION



Unit: mm

Package	D ±1.0	d ±0.5	L ±2.0	t ±0.2	W ±0.2	P0 ±0.1	P1 ±0.1	P2 ±0.1	D0 ±0.1	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	12	4	12	2	1.55	1.75	5.5	5.8	5.4	5.4	0.5	800

*Specifications subject to change without notice.