

Gas Discharge Tube

5.0x4.2mm 2 Poles Square End

MGT5-2S4 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

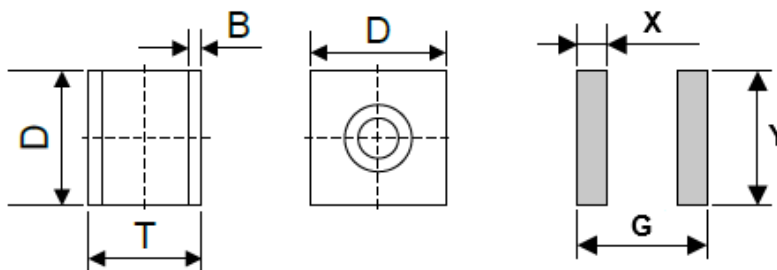


ELECTRICAL CHARACTERISTICS

Part Number	DC Spark-over Voltage	Impulse Spark-over Voltage	Impulse Discharge Current	Minimum Insulation Resistance		Maximum Capacitance
	100V/s	1KV/ μs	8/20 μs , 10times	V_T	IR	1MHz/1V
5.0x4.2mm	(V)	(V)	(KA)	(V _{DC})	(G Ω)	(pF)
MGT5L075MCB2S4	75 $\pm$ 20%	700	5.0	25	1	1
MGT5L090MCB2S4	90 $\pm$ 20%	650	5.0	50	1	1
MGT5L120MCB2S4	120 $\pm$ 20%	700	5.0	50	1	1
MGT5L150MCB2S4	150 $\pm$ 20%	700	5.0	100	1	1
MGT5L230MCB2S4	230 $\pm$ 20%	700	5.0	100	1	1
MGT5L250MCB2S4	250 $\pm$ 20%	700	5.0	100	1	1
MGT5L300MCB2S4	300 $\pm$ 20%	800	5.0	100	1	1
MGT5L350MCB2S4	350 $\pm$ 20%	850	5.0	100	1	1
MGT5L400MCB2S4	400 $\pm$ 20%	900	5.0	100	1	1
MGT5L470MCB2S4	470 $\pm$ 20%	1000	5.0	250	1	1
MGT5L600MCB2S4	600 $\pm$ 20%	1200	5.0	250	1	1
MGT5K800MCB2S4	800 $\pm$ 20%	1600	3.0	250	1	1
MGT5K1000MCB2S4	1000 $\pm$ 20%	1800	3.0	500	1	1

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

DIMENSIONS AND RECOMMENDATION PAD



Unit: mm

Series	D	T	B	X	Y	G
MGT5-2S4	5.0 $\pm$ 0.2	4.2 $\pm$ 0.3	0.5 $\pm$ 0.1	1.1	5.0	4.8

Gas Discharge Tube

5.0x4.2mm 2 Poles Square End

MGT5-2S4 Series

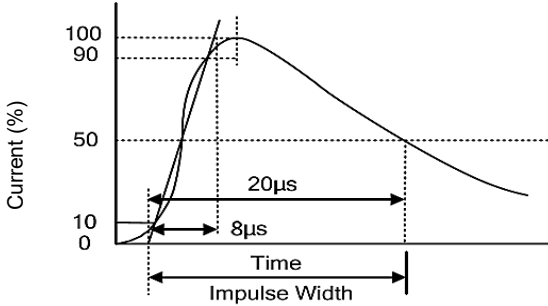
MERITEK

PART NUMBERING SYSTEM

MGT **5** **L** **075M** **CB2S4**
 (1) (2) (3) (4) (5)

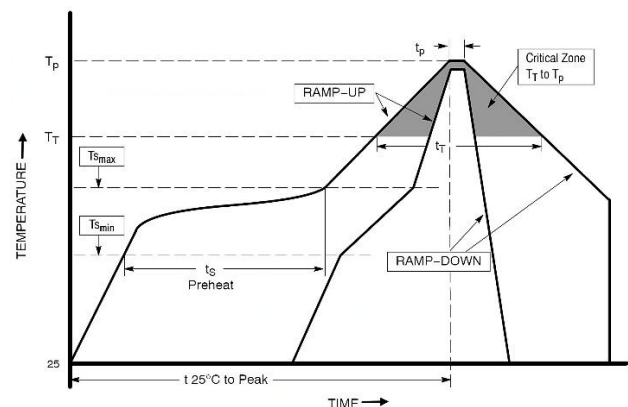
No	Item	Code	Description
(1)	Product Code	MGT	Gas Discharge Tube Series
(2)	Size Code	5	5.0mm Diameter
(3)	Discharge Current	L	5KA, 8/20μs, 10 times
(4)	DC Spark Over Voltage	075M	75V ±20%(M)
(5)	Series Code	CB2S4	CB2S4: 2 Poles Square End

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, without causing the DC spark-over voltage to change more than 25% from its initial measured value. Crest Value 	
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.	

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.

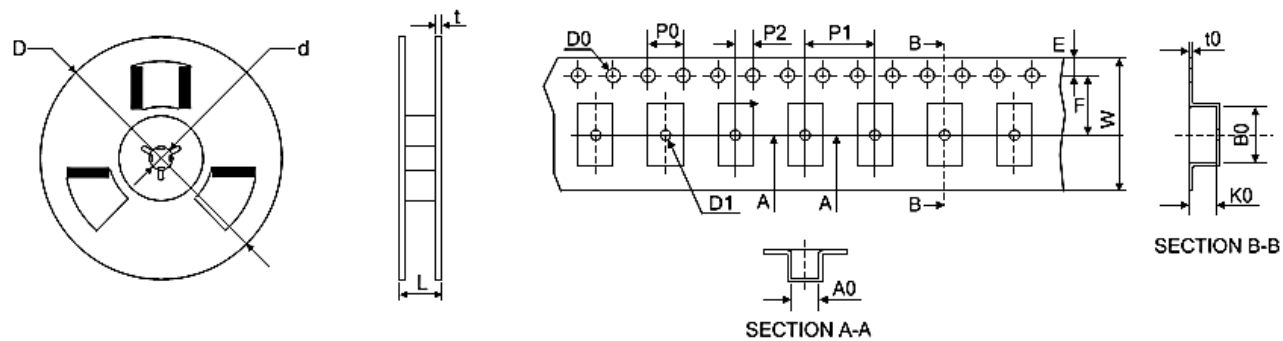


Gas Discharge Tube
5.0x4.2mm 2 Poles Square End

MGT5-2S4 Series

MERITEK

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 ±0.1	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	16	4	12	2	1.55	1.75	7.5	5.3	5.4	4.5	0.4	2500

*Specifications subject to change without notice.