Gas Discharge Tube
5.6x6.0mm 2 Poles Square End

MGT5-2S6 Series

MERITEK

FEATURE

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

RoHS

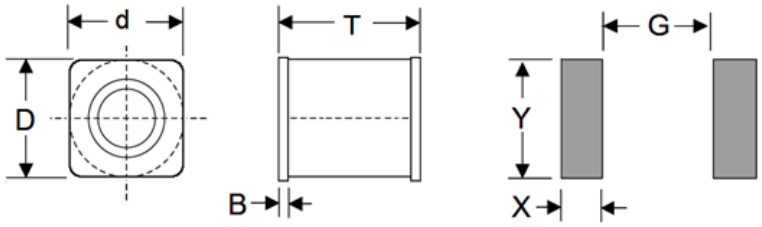
c UL us

ELECTRICAL CHARACTERISTICS

Part Number	DC Spark-over Voltage	Impulse Spark-over Voltage	Impulse Discharge Current	Impulse Life	Minimum Insulation Resistance		Maximum Capacitance
	100V/s	1KV/μs	8/20μs, 10times	10/1Kμs, 100A	V_T	IR	1MHz/1V
5.6x6.0mm	(V)	(V)	(KA)	(Times)	(V_{DC})	(GΩ)	(pF)
MGT5K102MCB2S6	1000±20%	1900	3	300	500	1	1.5
MGT5K122MCB2S6	1200±20%	2200	3	300	500	1	1.5
MGT5K142MCB2S6	1400±20%	2600	3	300	500	1	1.5
MGT5K162MCB2S6	1600±20%	2800	3	300	500	1	1.5
MGT5K202MCB2S6	2000±20%	3200	3	300	500	1	1.5
MGT5K252MCB2S6*	2500±20%	3600	3	300	1000	1	1.5

Note:
1.Operating Temperature: -40°C ~ +85°C
2. *AC Withstanding Voltage AC1250V, 1min

DIMENSIONS AND RECOMMENDATION PAD



Unit: mm

Series	D	d	T	B	G	X	Y
MGT5-2S6	5.6 ±0.2	5.6 ±0.2	6.0±0.2	0.5±0.2	4.5	1.5	5.6

PART NUMBERING SYSTEM

MGT (1) 5 (2) K (3) 102N (4) CB2S6 (5)

No	Item	Code	Description	
(1)	Product Code	MGT	Gas Discharge Tube series	
(2)	Size Code	5	5.6mm Diameter	DxT: 5.6x6.0mm
(3)	Discharge Current	K	3KA, 8/20μs,10 times	L: 5KA；M:10KA
(4)	DC Spark Over Voltage	102M	1000V ±20%(M)	DC Spark Over Voltage, 100V/s
(5)	Series Code	CB2S6	CB2S6: 2 Poles Square End	Internal Control Reference

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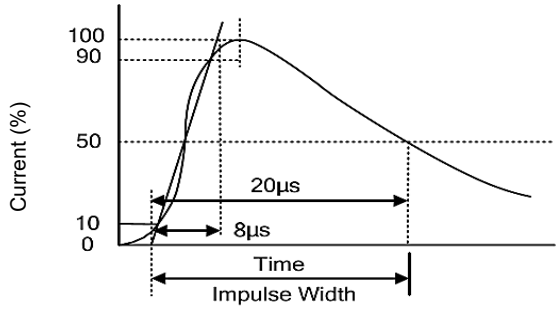
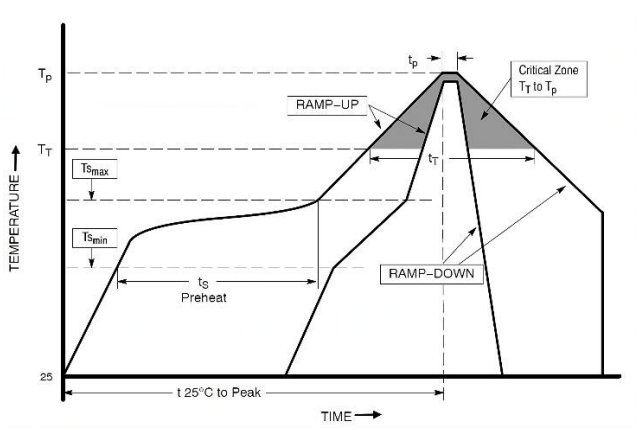
ELECTRICAL RATING

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/μs.	
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.



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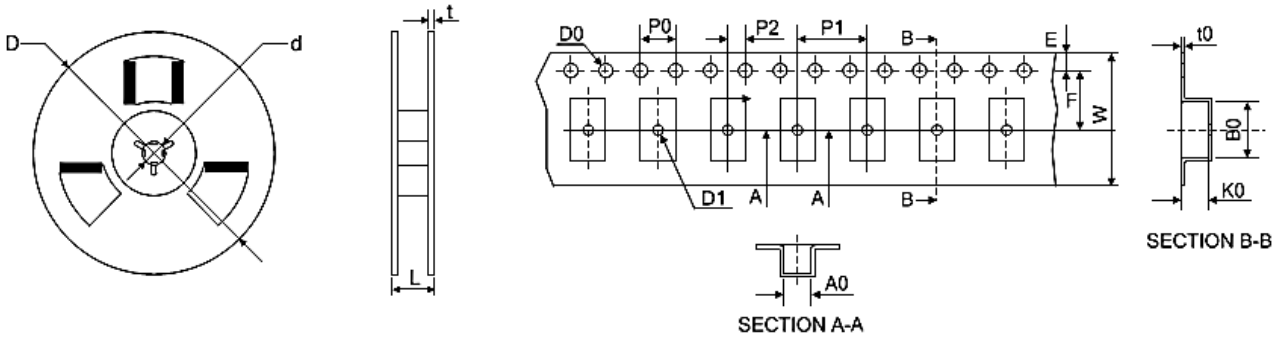
PACKAGING SPECIFICATION



Unit: mm

Package	D± 2.0	D± 0.50	L± 2.00	t± 0.20	W± 0.20	P0± 0.10	P1± 0.20	P2± 0.10	D0± 0.05	E± 0.10	F± 0.10	A0± 0.10	K0± 0.10	B0± 0.10	t0± 0.10	Qty/ Reel
Reel	330	13.0	20.0	2.00	16.0	4.00	12.0	2.00	1.55	1.75	7.50	5.90	5.90	6.30	0.50	800