

Gas Discharge Tube

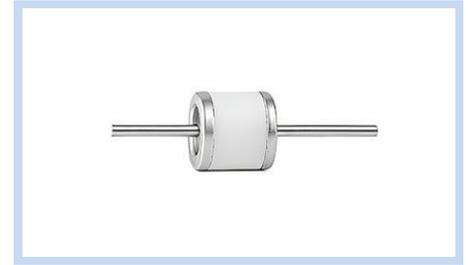
5.5x6.0mm 2 Poles Axial Leaded

MGT5-2Tx Series

MERITEK

FEATURE

- Ultra-Fast Surge Response
- High Surge Current Capability
- High Holder Voltage, High Insulation Resistance
- Low capacitance ($\leq 1.5\text{pF}$), 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
5.5x6.0mm	(V)	(V)	(KA)	(A)	(Times)	(V _{DC})	(G Ω)	(pF)
MGT5L070MCB2T	70 \pm 20%	800	5	5	300	25	1	1.5
MGT5L075MCB2T	75 \pm 20%	800	5	5	300	25	1	1.5
MGT5L090MCB2T	90 \pm 20%	700	5	5	300	50	1	1.5
MGT5L120MCB2T	120 \pm 20%	700	5	5	300	50	1	1.5
MGT5L145MCB2T	145 \pm 20%	700	5	5	300	100	1	1.5
MGT5L150MCB2T	150 \pm 20%	700	5	5	300	100	1	1.5
MGT5L230MCB2T	230 \pm 20%	700	5	5	300	100	1	1.5
MGT5L250MCB2T	250 \pm 20%	700	5	5	300	100	1	1.5
MGT5L300MCB2T	300 \pm 20%	900	5	5	300	100	1	1.5
MGT5L350MCB2T	350 \pm 20%	900	5	5	300	100	1	1.5
MGT5L400MCB2T	400 \pm 20%	1000	5	5	300	100	1	1.5
MGT5L470MCB2T	470 \pm 20%	1100	5	5	300	250	1	1.5
MGT5L600MCB2T	600 \pm 20%	1500	5	5	300	250	1	1.5
MGT5L800MCB2T	800 \pm 20%	1700	5	5	300	250	1	1.5
MGT5M070MCB2T	70 \pm 20%	600	10	5	500	25	1	1.5
MGT5M075MCB2T	75 \pm 20%	600	10	5	500	25	1	1.5
MGT5M090MCB2T	90 \pm 20%	600	10	10	500	50	1	1.5
MGT5M120MCB2T	120 \pm 20%	600	10	10	500	50	1	1.5
MGT5M145MCB2T	145 \pm 20%	700	10	10	500	100	1	1.5
MGT5M150MCB2T	150 \pm 20%	700	10	10	500	100	1	1.5
MGT5M230MCB2T	230 \pm 20%	700	10	10	500	100	1	1.5

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

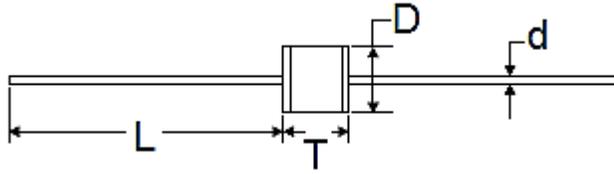
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DIMENSIONS



Unit: mm

Series	D	T	d	L
MGT5-2Tx	5~5.8	5.5~6.3	0.8±0.1	30.0 Max

PART NUMBERING SYSTEM

MGT (1) 5 (2) L (3) 070M (4) CB2T (5) R (6)

No	Item	Code	Description	
(1)	Product Code	MGT	Gas Discharge Tube series	
(2)	Size Code	5	5.5mm Diameter	DxT: 5.5x6.0mm
(3)	Discharge Current	L	L: 5KA, 8/20µs, 10 times	K: 3KA; M: 10KA
(4)	DC Spark Over Voltage	070M	70V ±20%(M)	DC Spark Over Voltage, 100V/s
(5)	Series Code	CB2T	CB2T: 2 Poles Round Axial Leaded	Internal Control Reference
(6)	Package Type	R	R: Tape and Reel	Y: Tray and Box

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	<p>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.</p> <p>Crest Value</p>	
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	

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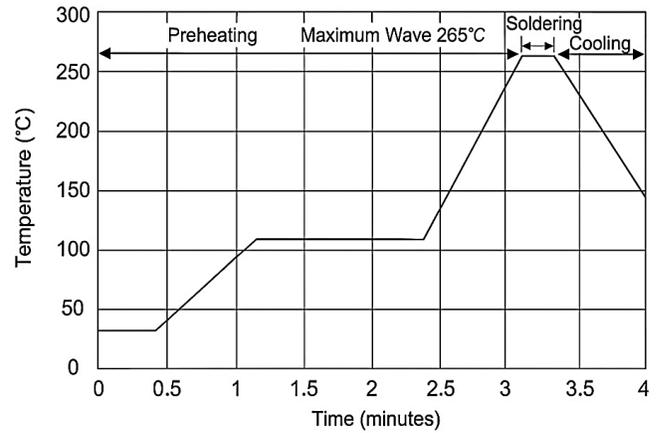
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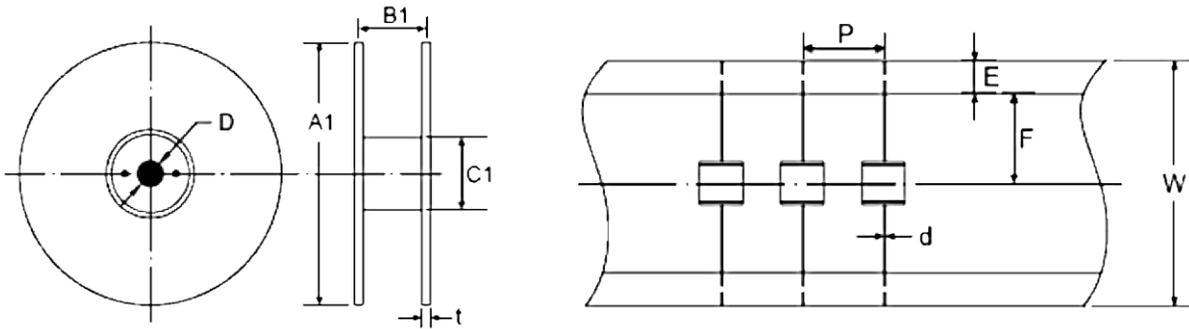
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RECOMMENDED SOLDERING PROFILES

Wave Soldering Process	
Peak Temperature	265°C (max.)
Dipping Time	10 sec. (max.)
Soldering	1 time

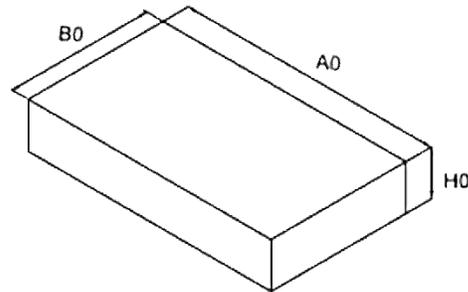
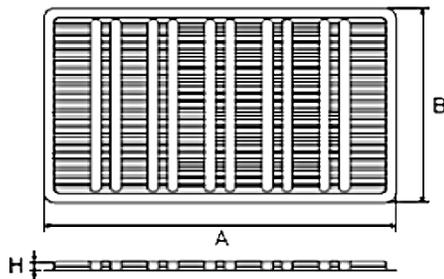


PACKAGING SPECIFICATION



Package	A1±2.0	B1±2.0	C1±2.0	D±0.5	t±0.2	P±0.5	W±1.0	E±0.5	F±0.5	d±0.1	Qty
Reel	330	70.0	82.0	25.0	2.0	10.0	65.0	6.0	26.5	0.8	1000

Unit: mm



Package	A±5.0	B±5.0	H±0.5	Qty /Tray	A0±2.0	B1±2.0	H0±2.0	Qty/Box
Tray	265	146	6.8	100	270	150	50	500

Unit: mm

*Specifications subject to change without notice.