

Gas Discharge Tube

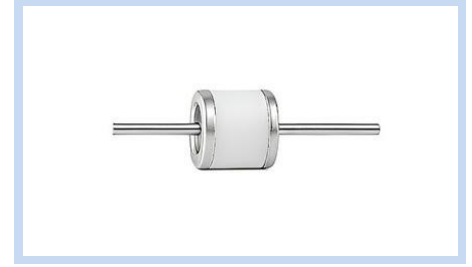
8.0x6.0mm 2 Poles Axial Leaded

MGT8-2Tx 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
8.0x6.0mm	(V)	(V)	(KA)	(A)	(Times)	(V _{DC})	(G Ω)	(pF)
MGT8M075MCB2T	75 \pm 20%	600	10	10	500	25	1	1.5
MGT8M090MCB2T	90 \pm 20%	600	10	10	500	50	1	1.5
MGT8M120MCB2T	120 \pm 20%	600	10	10	500	50	1	1.5
MGT8M145MCB2T	145 \pm 20%	700	10	10	500	100	1	1.5
MGT8M150MCB2T	150 \pm 20%	700	10	10	500	100	1	1.5
MGT8M230MCB2T	230 \pm 20%	700	10	10	500	100	1	1.5
MGT8M250MCB2T	250 \pm 20%	800	10	10	500	100	1	1.5
MGT8M300MCB2T	300 \pm 20%	900	10	10	500	100	1	1.5
MGT8M350MCB2T	350 \pm 20%	900	10	10	500	100	1	1.5
MGT8M400MCB2T	400 \pm 20%	1000	10	10	500	100	1	1.5
MGT8M470MCB2T	470 \pm 20%	1100	10	10	500	250	1	1.5
MGT8M600MCB2T	600 \pm 20%	1300	10	10	500	250	1	1.5
MGT8M800MCB2T	800 \pm 20%	1500	10	10	500	250	1	1.5
MGT8P075MCB2T	75 \pm 20%	600	20	20	500	25	1	1.5
MGT8P090MCB2T	90 \pm 20%	600	20	20	500	50	1	1.5
MGT8P120MCB2T	120 \pm 20%	600	20	20	500	50	1	1.5
MGT8P145MCB2T	145 \pm 20%	700	20	20	500	100	1	1.5
MGT8P150MCB2T	150 \pm 20%	700	20	20	500	100	1	1.5
MGT8P230MCB2T	230 \pm 20%	700	20	20	500	100	1	1.5
MGT8P250MCB2T	250 \pm 20%	800	20	20	500	100	1	1.5
MGT8P300MCB2T	300 \pm 20%	900	20	20	500	100	1	1.5
MGT8P350MCB2T	350 \pm 20%	900	20	20	500	100	1	1.5
MGT8P400MCB2T	400 \pm 20%	1000	20	20	500	100	1	1.5
MGT8P470MCB2T	470 \pm 20%	1100	20	20	500	250	1	1.5
MGT8P600MCB2T	600 \pm 20%	1300	20	20	500	250	1	1.5
MGT8P800MCB2T	800 \pm 20%	1500	20	20	500	250	1	1.5

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

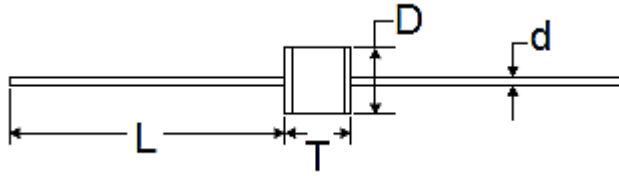
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DIMENSIONS



Unit: mm

Series	D	T	d	L
MGT8-2Tx	7.5~8.3	5.5~6.3	0.8±0.1	30.0 Max

PART NUMBERING SYSTEM

MGT (1) 8 (2) M (3) 075M (4) CB2T (5) R (6)

No	Item	Code	Description	
(1)	Product Code	MGT	Gas Discharge Tube series	
(2)	Size Code	8	8.0mm Diameter	DxT: 8.0x6.0mm
(3)	Discharge Current	M	M: 10KA, 8/20μs, 10 times	P: 20KA
(4)	DC Spark Over Voltage	075M	75V ±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</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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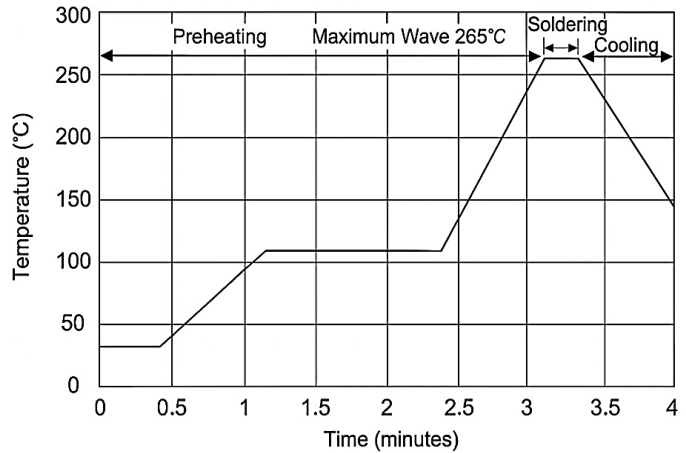
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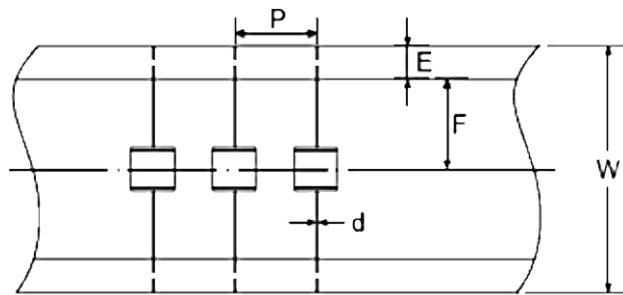
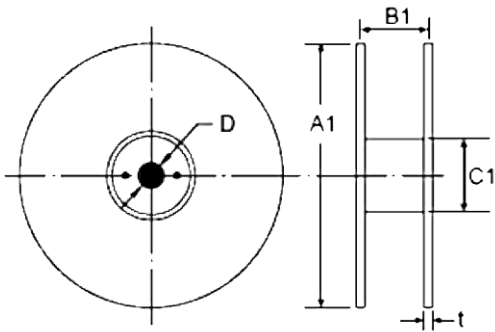
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RECOMMENDED SOLDERING PROFILES

Wave Soldering Condition	
Peak Temp.	265°C
Dipping Time	10 sec
Solder	1 time

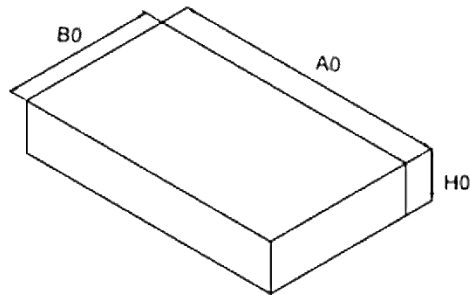
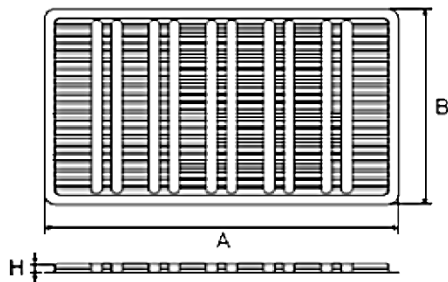


PACKAGING SPECIFICATION



Unit: mm

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	500



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	8.5	100	270	150	50	500

*Specifications subject to change without notice.