

Gas Discharge Tube

8.0x10.0mm 3 Poles Round End

MGT8-3 Series

MERITEK

FEATURE

- Ultra-Fast Surge Response
- High Surge Current Capability
- High Holder Voltage, High Insulation Resistance
- Low capacitance ($\leq 2\text{pF}$), Micro-Gap Design
- Applications: Repeaters, Modems, Telephone Interface, Line Cards, Data Communication Equipment, Line Test Equipment
- UL Safety Approved Certification No: E223045

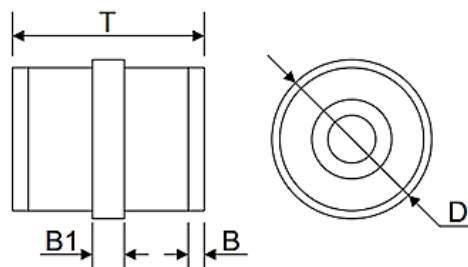


ELECTRICAL CHARACTERISTICS

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
8.0x10.0mm	(V)	(V)	(KA)	(A)	(Times)	(V _{DC})	(G Ω)	(pF)
MGT8M075MCB3	75 $\pm$ 20%	700	10	10	300	25	1	2
MGT8M090MCB3	90 $\pm$ 20%	700	10	10	300	50	1	2
MGT8M150MCB3	150 $\pm$ 20%	700	10	10	300	100	1	2
MGT8M200MCB3	200 $\pm$ 20%	700	10	10	300	100	1	2
MGT8M230MCB3	230 $\pm$ 20%	700	10	10	300	100	1	2
MGT8M350MCB3	350 $\pm$ 20%	850	10	10	300	100	1	2
MGT8M400MCB3	400 $\pm$ 20%	850	10	10	300	100	1	2
MGT8M470MCB3	470 $\pm$ 20%	950	10	10	300	250	1	2
MGT8M600MCB3	600 $\pm$ 20%	1300	10	10	300	250	1	2
MGT8P075MCB3	75 $\pm$ 20%	700	20	20	300	25	1	2
MGT8P090MCB3	90 $\pm$ 20%	700	20	20	300	50	1	2
MGT8P150MCB3	150 $\pm$ 20%	700	20	20	300	100	1	2
MGT8P200MCB3	200 $\pm$ 20%	700	20	20	300	100	1	2
MGT8P230MCB3	230 $\pm$ 20%	700	20	20	300	100	1	2
MGT8P350MCB3	350 $\pm$ 20%	850	20	20	300	100	1	2
MGT8P400MCB3	400 $\pm$ 20%	850	20	20	300	100	1	2
MGT8P300MCB3	470 $\pm$ 20%	950	20	20	300	250	1	2
MGT8P350MCB3	600 $\pm$ 20%	1300	20	20	300	250	1	2

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

DIMENSIONS



Unit: mm

Series	D	T	B	B1
MGT8-3	8.0 $\pm$ 0.2	10.0 $\pm$ 0.5	0.5 $\pm$ 0.1	1.5 $\pm$ 0.2

Notes: This type is not suitable for PCB soldering

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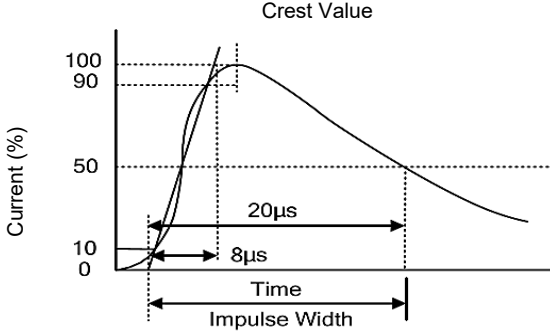
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PART NUMBERING SYSTEM

MGT **8** **M** **075M** **CB3**
 (1) (2) (3) (4) (5)

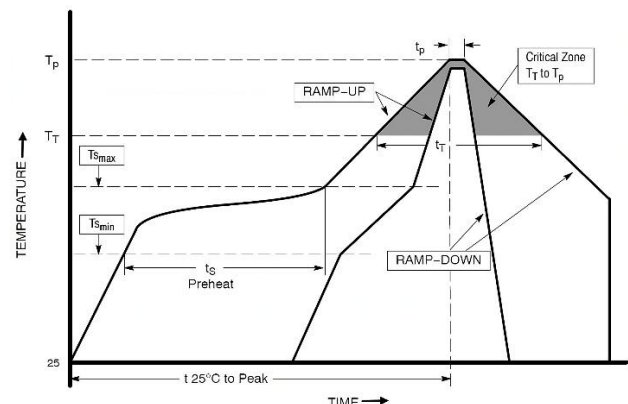
No	Item	Code	Description
(1)	Product Code	MGT	Gas Discharge Tube series
(2)	Size Code	8	8.0mm Diameter
(3)	Discharge Current	M	M: 10KA, 8/20μs, 10 times
(4)	DC Spark Over Voltage	075M	75V ±20%(M)
(5)	Series Code	CB3	CB3: 3 Poles Round End

ELECTRICAL RATING

Item	Test Condition	Requirement
DC Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt = 100V/s$. Test is between each side electrode and center electrode.	To meet the specified value
Maximum Impulse Spark-over Voltage	The voltage is measured with voltage ramp $dv/dt = 1000V/\mu s$. Test is between each side electrode and center electrode.	
Impulse Discharge Current	Maximum surge current that can be applied through center electrode with 8/20μs waveform, for 10 times with 3min interval time, which will be equally divided between each side electrode to center electrode 	
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 second for 10 times with interval time 3 minutes. Test is between each side electrode and center electrode.	
Insulation Resistance	The resistance of gas tube shall be measured between each side electrodes and center electrode	
Capacitance	The capacitance of gas tube shall be measured between each side electrodes and center electrode. 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.

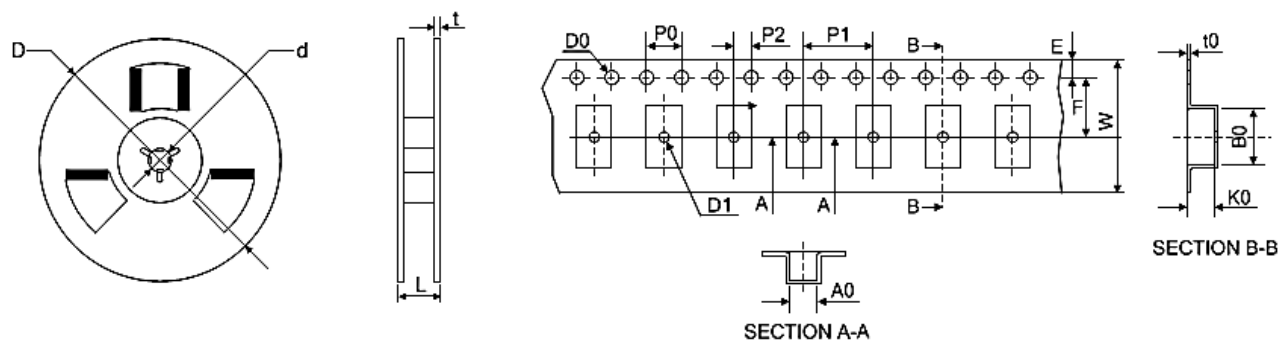


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PACKAGING SPECIFICATION



Unit: mm

Package	D ±2.0	d ±0.5	L ±2.0	t ±0.20	W ±0.20	P0 ±0.10	P1 ±0.10	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	2.0	16.0	4.0	16.0	2.0	1.55	1.75	7.50	11.6	8.9	8.6	0.5	300

*Specifications subject to change without notice.