

Gas Discharge Tube

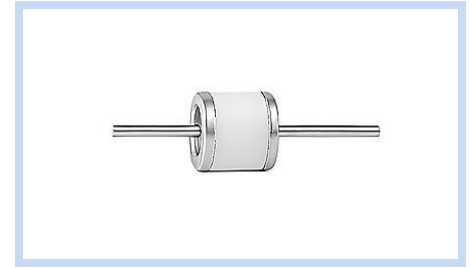
8.0x8.0mm 2 Poles Axial Leaded

MGT8-28Tx 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



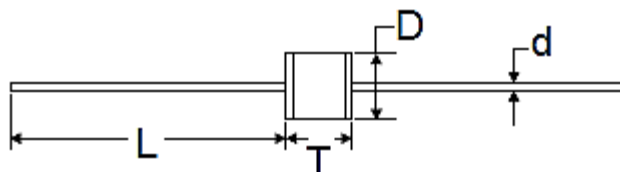
ELECTRICAL CHARACTERISTICS

Part Number	DC Spark-over Voltage	Impulse Spark-over Voltage	Impulse Discharge Current	Alternating Discharge Current	Impulse Life	Minimum Insulation Resistance		Max Cap	AC With-standing Voltage
	100V/s	1KV/ μs	8/20 μs , 10times	50Hz, 1sec	10/1K μs , 100A	V_T	IR	1MHz	
8.0x8.0mm	(V)	(V)	(KA)	(A)	(Times)	(V _{dc})	(G Ω)	(pF)	(1min)
MGT8H142MCB28T	1400 $\pm 20\%$	2200	2.5	2.5	100	500	1	1.5	--
MGT8H162MCB28T	1600 $\pm 20\%$	2400	2.5	2.5	100	500	1	1.5	--
MGT8H202MCB28T	2000 $\pm 20\%$	3000	2.5	2.5	100	500	1	1.5	--
MGT8H252MCB28T	2500 $\pm 20\%$	3600	2.5	2.5	100	500	1	1.5	1250
MGT8H272MCB28T	2700 $\pm 20\%$	4000	2.5	2.5	300*	1000	1	1.5	1250
MGT8H302MCB28T	3000 $\pm 20\%$	4200	2.5	2.5	100	1000	1	1.5	1500
MGT8H352MCB28T	3500 $\pm 20\%$	5000	2.5	2.5	100	1000	1	1.5	1800
MGT8H362MCB28T	3600 $\pm 20\%$	5200	2.5	2.5	100	1000	1	1.5	1800
MGT8K272MCB28T	2700 $\pm 20\%$	4000	3.0	3.0	300*	1000	1	1.5	1250
MGT8K302MCB28T	3000 $\pm 20\%$	4200	3.0	3.0	300*	1000	1	1.5	1500
MGT8K352MCB28T	3500 $\pm 20\%$	5000	3.0	3.0	100	1000	1	1.5	1800
MGT8K362MCB28T	3600 $\pm 20\%$	5200	3.0	3.0	100	1000	1	1.5	1800
MGT8K402MCB28T	4000 $\pm 20\%$	5500	3.0	3.0	100	1000	1	1.5	2000
MGT8L102MCB28T	1000 $\pm 20\%$	1400	5.0	5.0	100	500	1	1.5	--
MGT8L142MCB28T	1400 $\pm 20\%$	2200	5.0	5.0	100	500	1	1.5	--
MGT8L162MCB28T	1600 $\pm 20\%$	2400	5.0	5.0	100	500	1	1.5	--
MGT8L202MCB28T	2000 $\pm 20\%$	3000	5.0	5.0	100	500	1	1.5	--
MGT8L252MCB28T	2500 $\pm 20\%$	3600	5.0	5.0	100	1000	1	1.5	1250

Notes:

1. * Measure with an 8/20 μs waveform, 100A
2. Operating Temperature: -40°C ~ +85°C

DIMENSIONS



Unit: mm

Series	D	T	d	L
MGT8-28T	7.5~8.3	7.9~8.6	0.8 ± 0.1	30.0 Max

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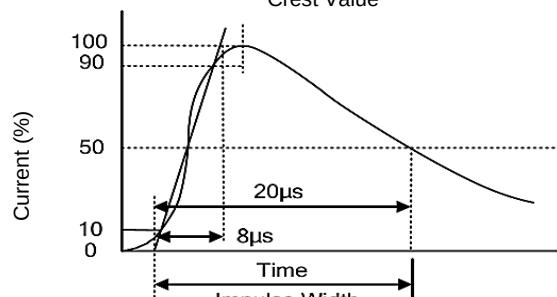
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PART NUMBERING SYSTEM

MGT **8** **H** **142M** **CB28T** **R**
 (1) (2) (3) (4) (5) (6)

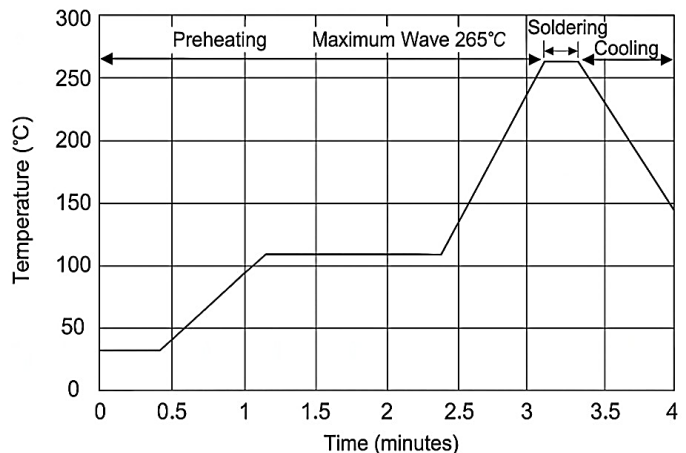
No	Item	Code	Description	
(1)	Product Code	MGT	Gas Discharge Tube series	
(2)	Size Code	8	8: 8mm Diameter	DxT: 8.0x8.0mm
(3)	Discharge Current	H	H: 2.5KA, 8/20μs, 10times	K: 3KA, L: 5KA
(4)	DC Spark Over Voltage	142M	1400V ±20%(M)	DC Spark Over Voltage, 100V/s
(5)	Series Code	CB28T	CB28T: 2 Poles Round Axial Leaded	Internal Control Reference
(6)	Package Type	R	R: Tape and Reel	Y: Tray and Box

RELIABILITY

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. Crest Value 	To meet the specified value
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 second for 10 times with interval time 3 minutes.	To meet the specified value
Insulation Resistance	The resistance of gas tube shall be measured between two electrodes.	To meet the specified value
Capacitance	The capacitance of gas tube shall be measured between two electrodes.	

RECOMMENDED SOLDERING PROFILES

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



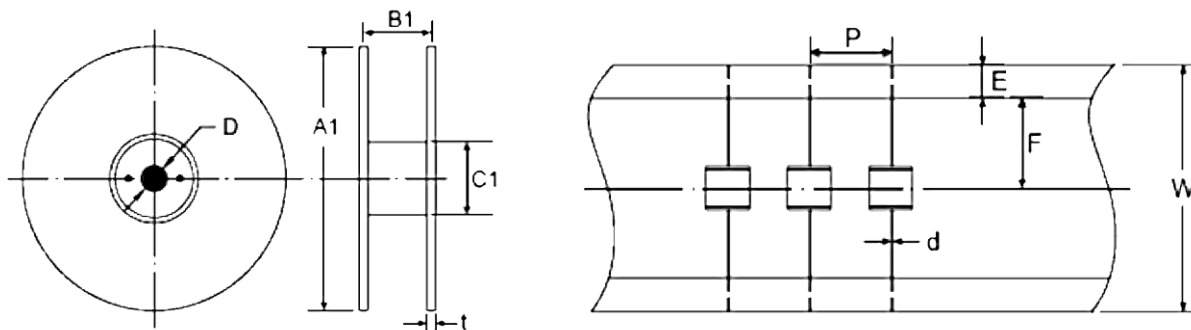
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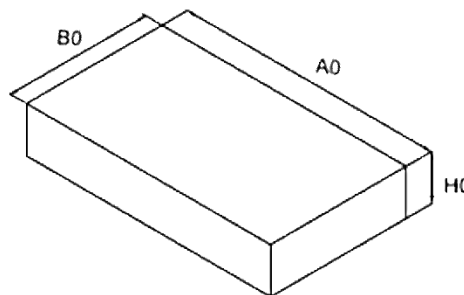
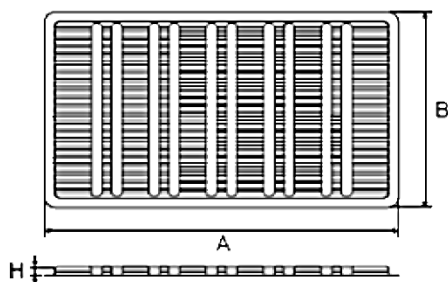
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PACKAGING SPECIFICATION



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	B0±2.0	H0±2.0	Qty/Box
Tray	265	146	9.5	100	270	150	50	500

*Specifications subject to change without notice.