Gas Discharge Tube (GDT) Datasheet

Features

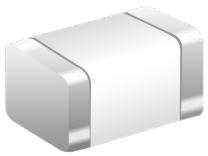
- Excellent response to fast rising transients
- Stable breakdown voltage
- Low capacitance and Insertion Loss
- High insulation resistance
- Dimensions 4.5*3.2*2.7 mm
- Storage and operating temperature: -40°C ~ +85°C
- Reliable to Protect Electrostatic Surge
- High Current Handling Capability @8/20μs;
- Moisture sensitivity level :Level 1

DC Spark-over Voltage
75V to 1000V

Applications

- Test equipment
- AC Power
- Power supplies
- Telephone Interface, Line cards
- General Telecommunications equipment

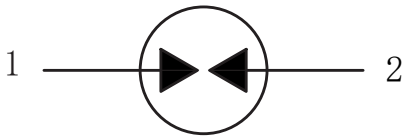
4532 Series



Part Number Code

4532 - 090

- 090: DC Spark-over Voltage
- 4532: Dimensions

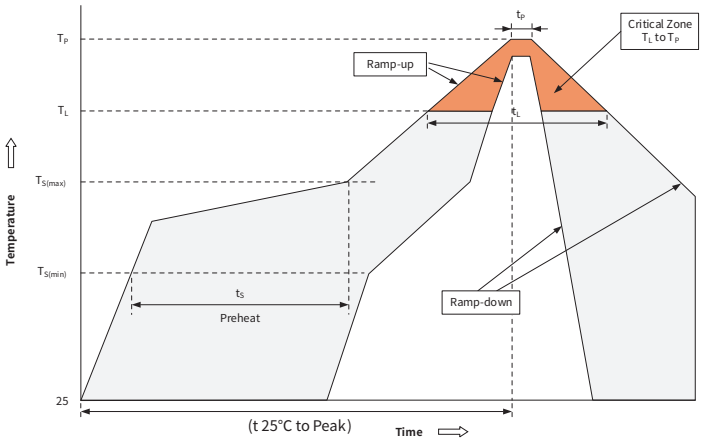


Electrical Characteristics (Ta=25°C Unless otherwise specified)

Part Number	DC Spark-over Voltage	Maximum Impulse Spark-over Voltage	Nominal Impulse Discharge Current@8/20μs	Impulse Waveform @10/700μs	AC discharge Current	Minimum Insulation Resistance		Maximum Capacitance
	100V/S	1000V/μs	±5times	±5times	50Hz,1sec	Test Voltage	GΩ	1MHz
	(V)	(V)	(KA)	(KV)	(A)	DC(V)		(pF)
4532-075	75V±30%	600	2	6	1	50	1	0.5
4532-090	90V±30%	600	2	6	1	50	1	0.5
4532-150	150V±30%	600	2	6	1	50	1	0.5
4532-200	200V±30%	800	2	6	1	100	1	0.5
4532-230	230V±30%	800	2	6	1	100	1	0.5
4532-300	300V±30%	850	2	6	1	100	1	0.5
4532-350	350V±30%	950	2	6	1	100	1	0.5
4532-400	400V±30%	1000	2	6	1	100	1	0.5
4532-470	470V±30%	1100	2	6	1	100	1	0.5
4532-600	600V±30%	1200	2	6	1	100	1	0.5
4532-800	800V±30%	1500	1	6	0.5	100	1	0.5
4532-1000	1000V±30%	1600	1	6	0.5	100	1	0.5

Note: 4532 Series without Marking.

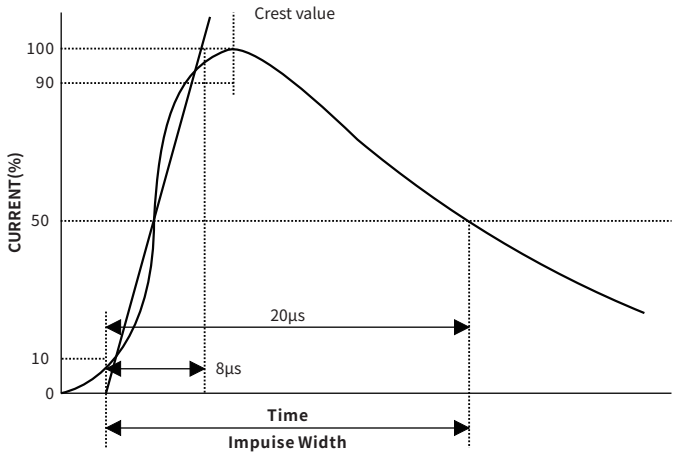
Recommended Soldering Conditions



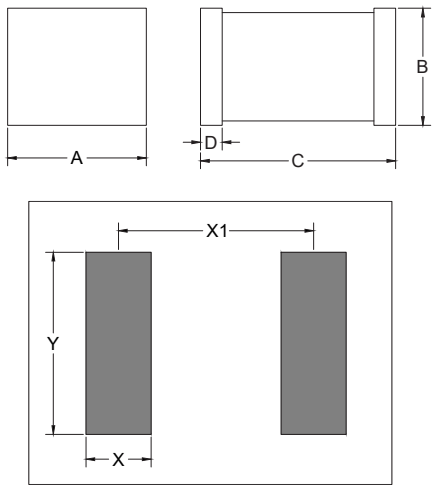
Reflow Soldering

Profile Feature		Pb-Free Assembly
Pre-heat	Temperature Min ($T_{S(min)}$)	+150°C
	Temperature Max($T_{S(max)}$)	+200°C
	Time (Min to Max) (t_S)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C /sec. Max
$T_{S(max)}$ to T_L - Ramp-up Rate		3°C /sec. Max
Reflow	Temperature(T_L)(Liquid us)	+217°C
	Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_P)		20-40secs
Ramp-down Rate		6°C /sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

Electrical Ratings

Items	Test Condition/Description	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 maximum impulse spark-over voltage is measured with voltage ramp dv/dt=1000V/μs.	
Impulse Discharge Current	Maximum 8/20μs surge current that can be applied between two electrodes, 5 positive and 5 negative surges, with 3 minutes interval time.	
		
Alternating Discharge Current	Rated RMS value of AC current at 50Hz, 1 sec. for 10 times with interval time 3 min.	
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	

Physical Dimensions & Recommended Pad Layout

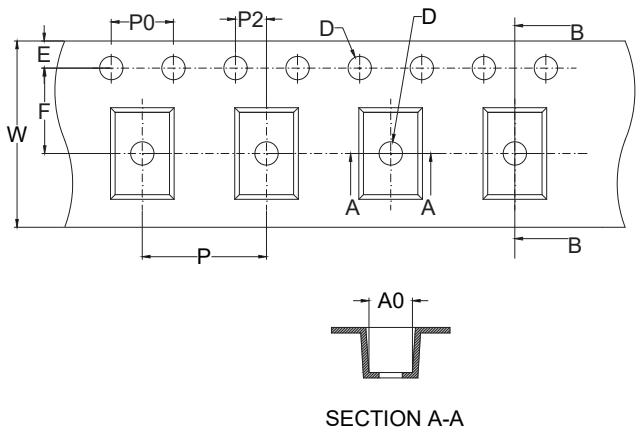


Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.9	3.5	0.114	0.138
B	2.4	3.0	0.094	0.118
C	4.2	4.8	0.165	0.189
D	0.3	0.6	0.012	0.024
X	1.4	1.6	0.055	0.063
X1	4.4	4.6	0.173	0.181
Y	4.1	4.3	0.161	0.169

Ordering Information

SERIES	SIZE(mm)	DELIVERY MODE	MPQ(pcs)	BOX（pcs）	CARTON(pcs)
4532 Series	4.5×3.2×2.7	13''REEL	2,500	5,000	25,000

Packaging Information



Symbol	Dimensions(mm)	
	Millimeters	Inches
W	12±0.3	0.472±0.012
A0	3.9±0.2	0.153±0.008
B0	4.9±0.2	0.193±0.008
P	8.0±0.2	0.315±0.008
F	5.5±0.2	0.217±0.008
E	1.75±0.1	0.069±0.004
D	1.5±0.1	0.059±0.004
P0	4.0±0.1	0.157±0.004
P2	2.0±0.1	0.079±0.004

Important Notice

1. This series is designed, manufactured, and sold exclusively for the domestic market (China).
2. This series is NOT UL Certified, and our company does not market or sell this product for use overseas.
3. If the customer exports this series to overseas markets (including but not limited to North America) without our prior written consent, the customer shall assume all risks and liabilities arising from the product's lack of UL certification.
4. By purchasing, using, or handling this product, the customer is deemed to have fully acknowledged and agreed to all terms stated in this notice.