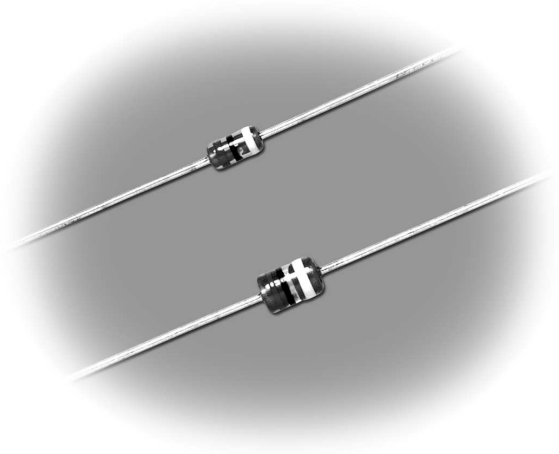
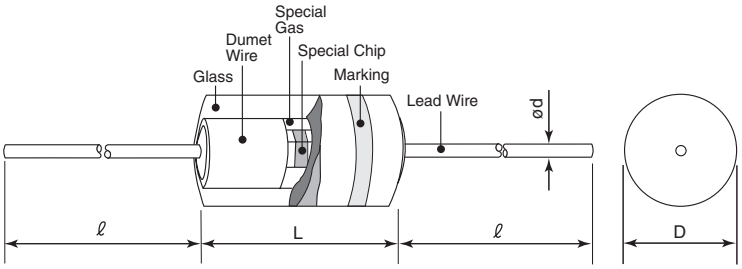


features

- Surge absorber elements in discharge tube with a microgap
- The small size requires less board space
- No need to distinguish polarity
- Quick response to surge voltage
- Stable against repeated surges
- Available for high frequency circuits due to the low-electrostatic capacitance
- Marking: Color code
- Products meet EU RoHS requirements

EU RoHS COMPLIANT

dimensions and construction



Type	Dimensions inches (mm)			
	L	D	d	l
SA05	.150±.020 (3.8±0.5)	.071±.012 (1.8±0.3)	.020 (0.5)	1.18±.118 (30±3)

ordering information

SA	05	C	T52	A	301	N
Product Code	Surge Current Capacity	Terminal Surface Material	Taping	Packaging	DC Spark-Over Voltage	DC Spark-Over Voltage Tolerance
	05: 500A	C: SnCu	T52: 52mm taping	A: Ammo	201: 200V 241: 240V 251: 250V 301: 300V 401: 400V 501: 500V 701: 700V	M: ±20% N: ±30%

ratings

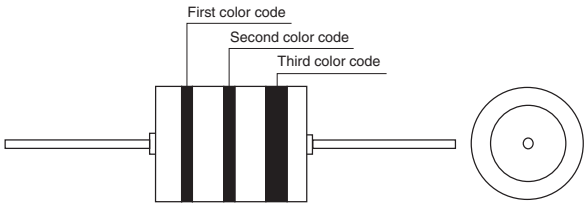
Type	Vs DC Spark-Over Voltage	Vs Tolerance	IR Insulation Resistance	Measurement Voltage	C Electrostatic Capacitance	Surge Current Capacity	Surge Life	Taping & Q'ty pcs
								T52A
SA05C	200V	±20%	100MΩ min.	DC100V	1pF Max. (1kHz-6V Max.)	500A (8/20μs)	200 times (1500pF-10kV-0Ω)	2,000
	240V	±30%						
	250V							
	300V							
	400V							
	500V			DC250V				
	700V							

Operating Temperature Range: -40°C - +85°C

circuit protection

environmental applications

Marking



Vs DC Spark-Over Voltage	Color Code		
	First color code	Second color code	Third color code
200V	Red	Black	DC Spark-Over Voltage Tolerance M ±20%: Plain N ±30%: White
240V		Yellow	
250V		Green	
300V	Orange	Black	
400V	Yellow		
500V	Green		
700V	Purple		

Performance Characteristics

Test Items	Test Methods	Performance Requirements
Spark-Over Voltage	Spark-over voltage refers to voltage that starts discharging. Discharge current shall be 0.5mA or under.	Within regulated tolerance.
Insulation Resistance	Measuring an insulatiuon resistance between terminals. For measurement voltage, refer to a rating table.	Within specified IR.
Electrostatic Capacitance	1kHz, 6Vmax.	Within specified C.
Resistance to Soldering Heat	260°C±5°C, 10s±1s	Vs, IR, and C to be within specified values.
Solderability	235°C±5°C, 5s±0.5s	95% Coverage min.
Terminal Strength	(Direct load); 5N,10s (Bending test); 2.5N, 90°, 2 times	No mechanical damage.
Rapid Change of Temperature	-40°C (30min.)/+125°C (30min.) 25 cycles	Vs, IR, and C to be within specified values.
Cold Resistance	-40°C±3°C, 1000h	Vs, IR, and C to be within specified values.
Heat Resistance	125°C±2°C, 1000h	Vs, IR, and C to be within specified values.
Humidity Resistance	40°C±2°C, 90%–95%RH, 1000h	Vs, IR, and C to be within specified values.
Surge Current Capacity	8/20μs, 500A, 3 times	With no mechanical damage.
Surge Life	1500pF-10kV-0Ω, 200 times	ΔVs/Vs≤30% IR and C to be within specified values.