

SURGiNG

紹 鑫 實 業



SurgeArresters

陶瓷气体放电管

SMF Series

Gas Discharge Tubes(GDT)

SMF90X

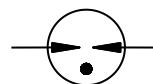
Description

Using the technical requirements of the leading industry, SURGING has designed a super thin gas discharge tube, which is mainly used in the product's volume requirements and space constraints.

Gas discharge tubes (GDT) use noble gasses enclosed in ceramic tubes to provide an alternate circuit path for voltage spikes. The ceramic envelope and with nickel connectors allow for high loads. SMF90X Gas Discharge Tubes (GDT) series has a surge rating of 20kA, 8/20 μ s. This GDT series is perfectly suited for broadband equipment applications. The GDT's low off-state capacitance is compatible with high bandwidth applications and this capacitance loading value does not vary if the voltage across the GDT changes.



Electrical symbol



Features

- Excellent response to fast rising transients
- Stable breakdown voltage
- GHz working frequency
- 8/20 μ s Impulse current capability: 20KA
- Surface Mount package
- Non-Radioactive
- Ultra Low capacitance(<3.0pF) and insertion loss
- Lead-free and RoHS compliant
- Storage and operational temperature: -40~+90°C

Applications

- Telecom CPE
- Communication equipment
- Surge Protective Devices
- High density PCB assemblies

Part Number Code

SMF 90X

Series:

SMF 8*2

SMD 4.5*3.2*3.2

DCLineVoltage:

90X=90V

230X=230V

Gas Discharge Tubes(GDT)

SMF90X

Electrical Characteristics

DC Spark-over Voltage ^{1) 2)}	at 100V/S		90±20%	V
Impulse Spark-over Voltage	at 100V/μS		<500	V
	at 1KV/μS		<600	V
Service life				
Impulse Discharge Current	8/20μS	±5 times	20	KA
	8/20μS	1 time	25	KA
AC Discharge Current	50Hz,1S	5 times	20	A
Impulse Life	10/1000μS	±150 times	200	A
Insulation Resistance	at DC 50V		>1	GΩ
Capacitance	at 1MHz		<3.0	pF
Glow Voltage	at 10mA		~60	V
Arc Voltage	at 1A		~10	V
Glow to Arc transition current			~1	A
Weight			~0.47	g
Operation and storage temperature			-40~90	°C
Climatic category (IEC60068-1)			40/90/21	
Marking			Without	
Surface treatment			Matte-tin plated	

¹⁾ At delivery AQL 0.65 level II, DIN ISO 2859

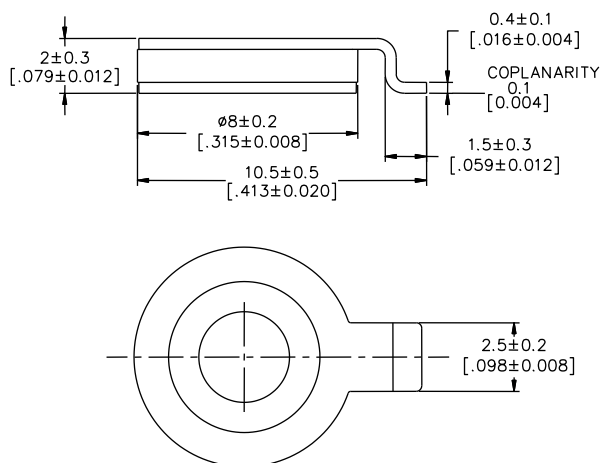
²⁾ In ionized mode

Terms in accordance with ITU-T Rec. K.12, IEC 61643-311, GB/T 9043.

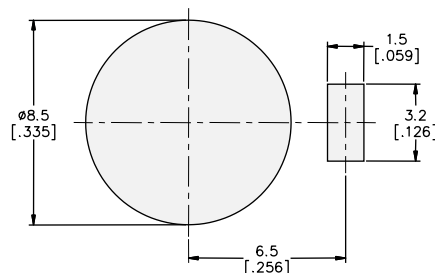
Gas Discharge Tubes(GDT)

SMF90X

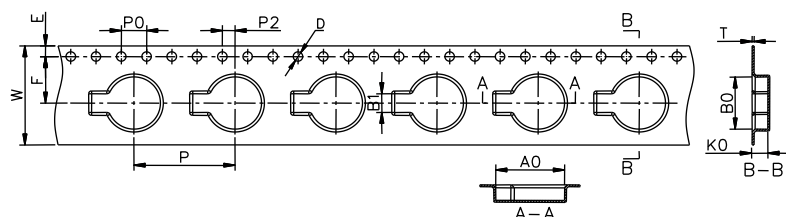
Dimensions (Unit: mm/inch)



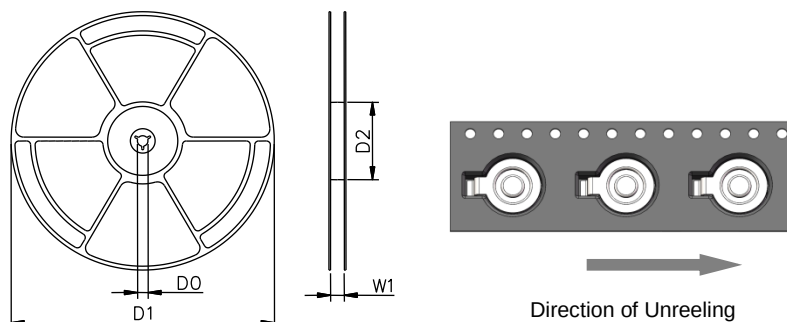
Recommended Soldering Pad Layout



Taping and Reel Specifications



SMD-tape according to IEC 60286-3



Symbol	Millimeters	Inches
W	16±0.3	0.630±0.012
A0	10.9±0.1	0.429±0.004
B0	8.4±0.1	0.331±0.004
B1	3.0±0.1	0.118±0.004
K0	2.5±0.1	0.098±0.004
P	16±0.1	0.630±0.004
F	7.5±0.1	0.295±0.004
E	1.75±0.1	0.069±0.004
D	1.5+0.1/-0.0	0.059+0.004/-0.0
P0	4±0.1	0.157±0.004
P2	2±0.1	0.079±0.004
T	0.3±0.05	0.012±0.002
D0	13.3±0.15	0.524±0.006
D1	330±2`	12.992±0.079
D2	100+1/-2	3.937+0.039/-0.079
W1	16.5±0.4	0.65±0.016

Packaging Quantity:

1500 PCS per reel (13")

3 reels per inner box

4500 PCS per inner box