SANKŌSHA

Three Electrode Gas Discharge Tube (GDT)

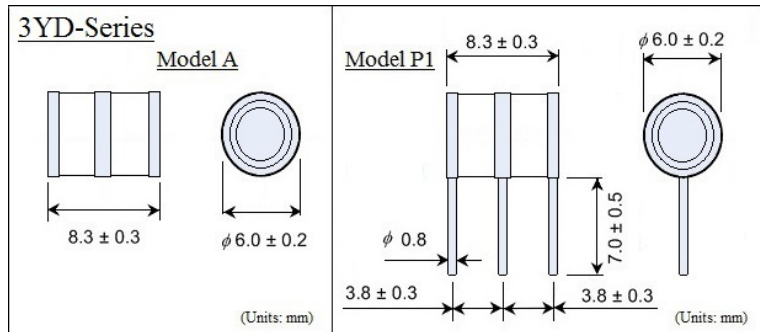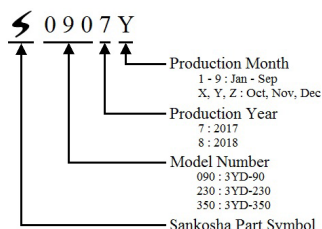## Part Number: 3YD-90A / 3YD-90P1

Features:

- Protects Against Lightning, Surges, and Over Voltages
- Low Impulse Breakdown Voltage
- High Current and Multiple Strike Capability
- Low Capacitance
- Bi-Directional
- RoHS and RoHS2 Compliant
- ISO 9001 & ISO 14001 Certified
- UL Recognized (497B File E140906)
- Non-Radioactive and Maintenance Free
- Thru-hole Type and Clip Type Available (Model P1 and Model A)

Electrical Characteristics	
DC Breakdown Voltage (100 V/sec)	90V ± 20%
Impulse Breakdown Voltage (1 kV/μsec)	≤ 600V
Insulation Resistance (at 50VDC)	≥ 10,000M Ω
Capacitance (at 1MHz)	≤ 3pF
DC Holdover Voltage (in accordance to ITU-T K.12)	52V (with current turn-off time of <150ms)
Impulse Life (with 10/1000μsec impulse)	200A (100 times) (100A x 2)
Impulse Discharge Current (with 8/20μsec impulse)	10kA (5 times in each polarity) (5kA x 2)
Impulse Discharge Current (with 10/35μsec impulse)	5kA (2 times) (2.5kA x 2)
AC Discharge Current (50 Hz for 1 second)	-

After Life Performance (Specs after exceeding **Impulse Life**, **Impulse Discharge Current**, or **AC Discharge Current** conditions)	
DC Breakdown Voltage (100 V/sec)	65V ~ 120V
Impulse Breakdown Voltage (1 kV/μsec)	≤ 700V
Insulation Resistance (at 50VDC)	≥ 100M Ω

Mechanical Characteristics	
Number of Electrodes & Electrode Material	Three Electrodes, Tin Plated
Form Factor / Mounting Method	Thru-hole or Clip
Packaging Type	Tray (100 pcs per tray)

Environmental Characteristics	
Operating and Storage Temperature Range	-40°C to +90°C (-40°F to 194°F)
Operating and Storage Humidity	≤ 90% non-condensing

Applications:

- Transient Voltage Surge Suppression (TVSS)
- Cable and Telephone Products
- Routers and Access Points
- Modems/Cable Modems
- Broadband/CATV/Coaxial Protectors

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Production Month
1 - 9 : Jan - Sep
X, Y, Z : Oct, Nov, Dec

Production Year
7 : 2017
8 : 2018

Model Number
090 : 3YD-90
230 : 3YD-230
350 : 3YD-350

Sankosha Part Symbol

3YD-Series

Model A

8.3 ± 0.3   φ 6.0 ± 0.2

(Units: mm)

Model P1   8.3 ± 0.3   φ 6.0 ± 0.2

φ 0.8

3.8 ± 0.3   3.8 ± 0.3

7.0 ± 0.5

(Units: mm)