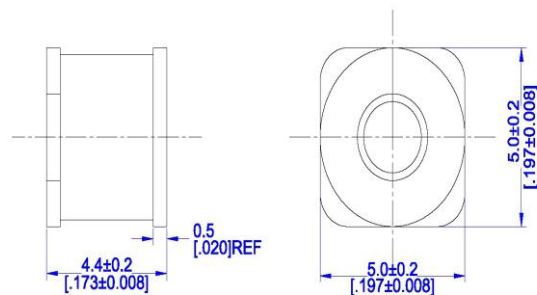
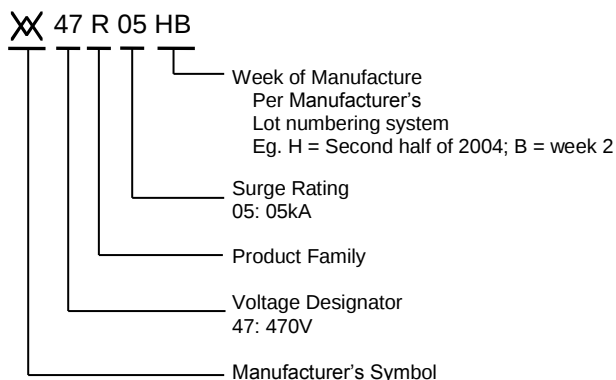


**Specification Status: Released**

**Marking:**



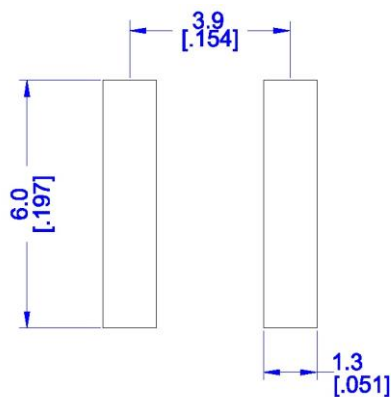
**TABLE I. ELECTRICAL CHARACTERISTICS:**

| DC Sparkover Voltage* | Impulse Sparkover Voltage |           | Insulation Resistance | Capacitance | Impulse Discharge Current 8/20μs | AC Discharge Current, 50 Hz          | Impulse Discharge Current, 10/1000μs |
|-----------------------|---------------------------|-----------|-----------------------|-------------|----------------------------------|--------------------------------------|--------------------------------------|
| @ 100V/s              | @100V/μs                  | @1000V/μs | @100V <sub>DC</sub>   | @1MHz       | 10 hits(5 times each polarity)   | Multiple Hits (1s duration: 10 Hits) | 300 hits(150 times each polarity)    |
| 470V ± 15%            | ≤750V                     | ≤950V     | ≥ 10,000MΩ            | <1pF        | 5kA                              | 5A                                   | 100A                                 |

\*In ionized mode

Testing methods and specifications referring to ITU-T K.12

**PAD LAYOUT-SURFACE MOUNT DEVICES**



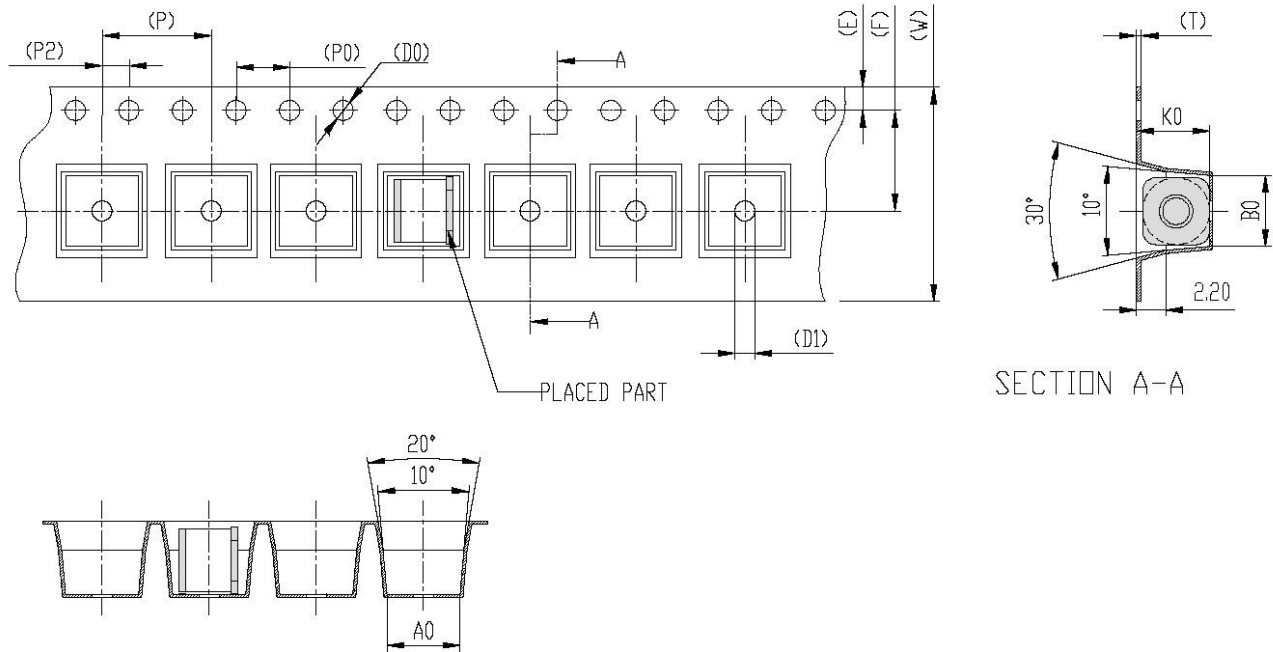
# Gas Discharge Tube

## Over-Voltage Protection Device

**PRODUCT: GTCS25-471L-R05**

DOCUMENT: SCD28505  
REV LETTER: A  
REV DATE: JULY 26, 2016  
PAGE NO.: 2 OF 3

### TAPING INFORMATION (ACCORDING TO EIA-481):



| DIMENSION IN MM |            |    |                                     |    |           |           |           |
|-----------------|------------|----|-------------------------------------|----|-----------|-----------|-----------|
| W               | 16.00±0.30 | P  | 8.00±0.10                           | A0 | 4.90±0.10 | B0        | 5.50±0.10 |
| S               |            | P0 | 4.00±0.10                           |    |           |           |           |
| E               | 1.75±0.10  | P2 | 2.00±0.10                           |    |           |           |           |
| F               | 7.50±0.10  | D0 | ø1.50 <sup>+0.10</sup> <sub>0</sub> | K0 | 5.30±0.10 |           |           |
| T               | 0.40±0.05  | D1 | ø1.50 MIN                           |    |           | COLOR : B |           |

### PACKAGING QUANTITY:

| REEL       | STANDARD PACKAGE |
|------------|------------------|
| 1,500 pcs. | 12,000 pcs.      |

### General Characteristics

No Radioactive Materials

Storage temperature: -40°C ... +90°C

Operating temperature: -40°C ... +90°C

Electrode Material: Sn Plated

Agency Recognitions: UL497B Recognized (File# E179610)

Precedence: This specification takes precedence over documents referenced herein

Effectivity: Reference documents shall be the issue in effect on the date of invitation for bid

CAUTION: Operation beyond the rated voltage or current may result in rupture, electrical arcing or flame

# Gas Discharge Tube

## Over-Voltage Protection Device

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### Materials Information

#### ROHS Compliant

Directive 2002/95/EC  
Compliant

#### ELV Compliant

Directive 2000/53/EC  
Compliant

#### Pb-Free



Littelfuse products are not designed for, and shall not be used for, any purpose (including, without limitation, automotive, military, aerospace, medical, life-saving, life-sustaining or nuclear facility applications, devices intended for surgical implant into the body, or any other application in which the failure or lack of desired operation of the product may result in personal injury, death, or property damage) other than those expressly set forth in applicable Littelfuse product documentation. Warranties granted by Littelfuse shall be deemed void for products used for any purpose not expressly set forth in applicable Littelfuse documentation. Littelfuse shall not be liable for any claims or damages arising out of products used in applications not expressly intended by Littelfuse as set forth in applicable Littelfuse documentation. The sale and use of Littelfuse products is subject to Littelfuse Terms and Conditions of Sale, unless otherwise agreed by Littelfuse.