

## Specification Status: Released

### Operating Conditions at 20°C:

Maximum Continuous Operating Voltage ( $V_{mco}$ ): 60V<sub>dc</sub>  
Maximum Interrupt Current ( $I_{int}$ ): 3A<sub>rms</sub>

### Fault Ratings at 20°C:

Maximum Limited Duration Voltage ( $V_{ldf}$ ): 600 V<sub>rms</sub>  
Maximum Limited Duration Current ( $I_{ldf}$ ): 40A

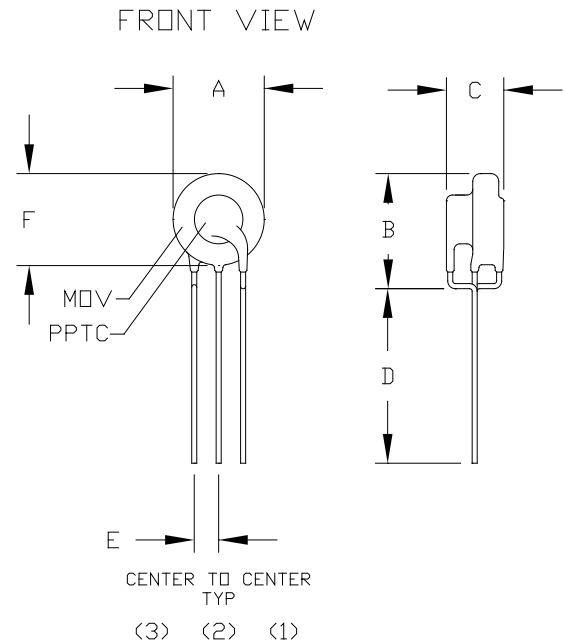
**Insulating Material:** Cured, Flame Retardant Epoxy Polymer  
(meeting UL94 V-0 requirements)

### Lead Material:

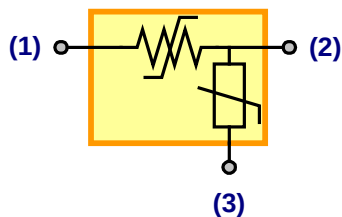
22 AWG Sn- Plated Copper (0.65 mm [0.026"] nominal diameter)

### Marking (on back):

— Manufacturer's Mark  
X 1027 — Part Identification  
□ □ □ □ — Lot Identification



### Electrical Schematic:



**TABLE I. DIMENSIONS:**

|      | A   |        | B   |        | C   |        | D      |     | E      | F   |        |
|------|-----|--------|-----|--------|-----|--------|--------|-----|--------|-----|--------|
|      | MIN | MAX    | MIN | MAX    | MIN | MAX    | MIN    | MAX | NOM    | MIN | MAX    |
| mm:  | --  | 12.0   | --  | 15.0   | --  | 6.6    | 6.0    | --  | 2.5    | --  | 12.0   |
| in.* | --  | (0.47) | --  | (0.59) | --  | (0.26) | (0.24) | --  | (0.10) | --  | (0.47) |

\*Rounded off approximation

## Intended Use: Communications and Signaling Circuits.

**TABLE II. PPTC-SECTION (terminals 1-2) PERFORMANCE RATINGS @ 20°C:**

| HOLD<br>CURRENT<br>(A) | TRIP<br>CURRENT<br>(A) | RESISTANCE (Ω)† |       |                     | TIME TO TRIP† (s)<br>@ 1A |     |
|------------------------|------------------------|-----------------|-------|---------------------|---------------------------|-----|
|                        |                        | R MIN           | R MAX | R <sub>1</sub> MAX* | TYP                       | MAX |
| 0.15                   | 0.30                   | 6.5             | 14.0  | 16.0                | 0.9                       | 3   |

\*Maximum device resistance at 20°C measured 1 hour post trip.

† Corresponds to operations below varistor switch voltage.

**TABLE III. MOV-SECTION (terminals 2-3) PERFORMANCE RATINGS @ 20°C:**

| VARISTOR VOLTAGE<br>V @ 1mA |            | DC RESISTANCE @ 100V | MAXIMUM CLAMPING<br>VOLTAGE<br>@ 25A | RATED WATTAGE |
|-----------------------------|------------|----------------------|--------------------------------------|---------------|
| DC (V)                      | Tolerance  | (MΩ)                 | (V)                                  | (W)           |
| 260                         | +14% / -7% | >10                  | 455                                  | 0.25          |

**TABLE IV. LIGHTNING WITHSTAND FOR THE ASSEMBLY (TERMINALS 1-3) @ 20°C:**

| Parameter                             | VOLTAGE – Open Circuit |                  | CURRENT – Short Circuit |                  | Repetitions    |
|---------------------------------------|------------------------|------------------|-------------------------|------------------|----------------|
|                                       | Voltage<br>(V)         | Waveform<br>(μs) | Current<br>(A)          | Waveform<br>(μs) |                |
| TIA-968 Lightning Type A Metallic     | 800                    | 10 x 560         | 100                     | 10 x 560         | 1 ea. Polarity |
| TIA-968 Lightning Type A Longitudinal | 1500                   | 10 x 160         | 200                     | 10 x 160         | 1 ea. Polarity |
| TIA-968 Lightning Type B Metallic     | 1000                   | 9 x 720          | 25                      | 5 x 320          | 1 ea. Polarity |
| TIA-968 Lightning Type B Longitudinal | 1500                   | 9 x 720          | 37.5                    | 5 x 320          | 1 ea. Polarity |
| ITU-T K.20/K.21                       | 1500                   | 10 x 700         | 37.5                    | 5 x 310          | 5 ea. Polarity |

**TABLE V. APPLICABLE PART DESCRIPTIONS:**

| PART DESCRIPTION | PCN # (INTERNAL USE ONLY) | PACKAGING TYPE | NOTES                 |
|------------------|---------------------------|----------------|-----------------------|
| TM2P-10271       | RF0378-000                | Bulk           | N/A                   |
| TM2P-10271-2     | RF0504-000                | Tape and Reel  | Dim. D not applicable |

|                      |                                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------------|
| Agency Recognitions: | N/A                                                                                              |
| Reference Documents: | PS300 for PPTC section                                                                           |
| 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. |

## Materials Information

### ROHS Compliant

Directive 2002/95/EC  
Compliant

### ELV Compliant

Directive 2000/53/EC  
Compliant

### Pb-Free



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