

# PolySwitch® PTC Devices

Overcurrent Protection Device

PRODUCT: TRF250-120US

DOCUMENT: SCD26219  
REV LETTER: F  
REV DATE: MAY 11, 2011  
PAGE NO.: 1 OF 1

## 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:

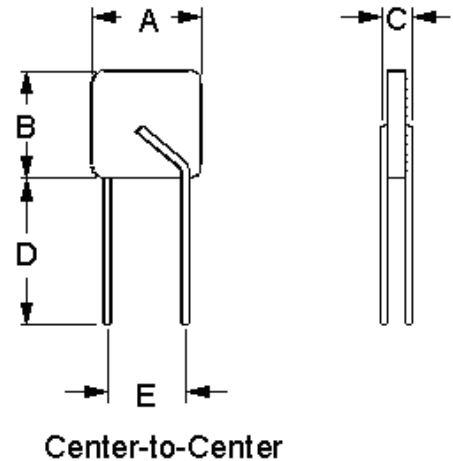
250V<sub>RMS</sub>, 3A, 10 applications

### Additional Info at 20°C:

- Resistance matched: n/a
- Lightning withstand: 1.5kV per ITU-T K.20
- Helps equipment meet ITU-T K.20 Recommendations
- Helps equipment meet Telcordia GR1089 intrabuilding requirements

### Lead Material:

22 AWG Sn-Plated Copper (0.64 mm [0.025"] nominal diameter)



### Marking:

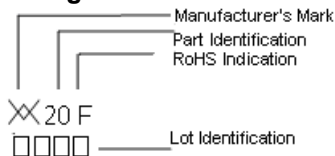


TABLE I. DIMENSIONS:

|      | A   |        | B   |        | C   |        | D   |        | E      |
|------|-----|--------|-----|--------|-----|--------|-----|--------|--------|
|      | MIN | MAX    | MIN | MAX    | MIN | MAX    | MIN | MAX    | NOM    |
| mm:  | --  | 6.0    | --  | 5.7    | --  | 3.8    | --  | 4.7    | 5.0    |
| in.* | --  | (0.24) | --  | (0.22) | --  | (0.15) | --  | (0.19) | (0.20) |

\*Rounded off approximation

TABLE II. PERFORMANCE RATINGS @ 20°C :

| HOLD<br>CURRENT<br>(A) | TRIP<br>CURRENT<br>(A) | RESISTANCE (Ω) |       |                     | TIME TO TRIP(Sec)<br>@ 1A |     | OPERATING<br>TEMPERATURE<br>(°C) |     | TRIPPED<br>POWER DISSIPATION<br>(W) 60V <sub>DC</sub> ** |     |
|------------------------|------------------------|----------------|-------|---------------------|---------------------------|-----|----------------------------------|-----|----------------------------------------------------------|-----|
|                        |                        | R MIN          | R MAX | R <sub>1</sub> MAX* | TYP                       | MAX | MIN                              | MAX | TYP                                                      | MAX |
| 0.120                  | 0.240                  | 6.0            | 10.0  | 16.0                | 1.0                       | 2.0 | -40                              | 85  | 0.7                                                      | 0.8 |

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

TABLE III. APPLICABLE PART DESCRIPTIONS:

| PART DESCRIPTION | PACKAGING TYPE | NOTES                  |
|------------------|----------------|------------------------|
| TRF250-120US     | Bulk           | N/A                    |
| TRF250-120US-2   | Tape and Reel  | Dim "D" not applicable |

Agency Recognitions:  
Reference Documents:  
Precedence:  
Effectivity:  
CAUTION:

UL (File #E74889), CSA (File #78165C), TUV  
PS300, ITU-T K.20  
This specification takes precedence over documents referenced herein.  
Reference documents shall be the issue in effect on the date of invitation for bid.  
Operation beyond the rated voltage or current may result in rupture, electrical arcing or flame.

### Materials Information

ROHS Compliant

ELV Compliant

Pb-Free

Directive 2002/95/EC  
Compliant

Directive 2000/53/EC  
Compliant

