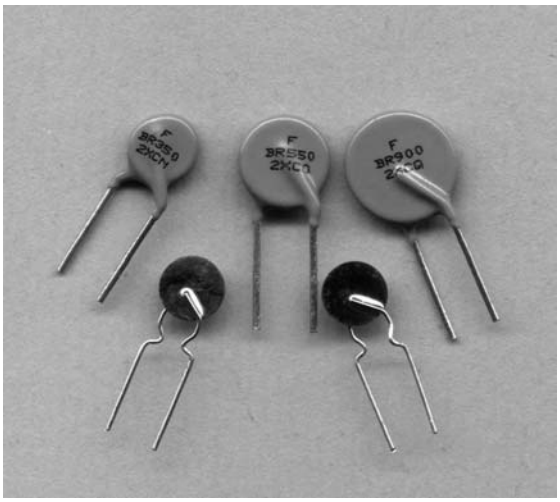
# Radial Leaded PTC
# FBR Series



**Application:**

Cable /Telephone Electronics: Cable Power Passing Tap.

**Product Features:**

Low hold current, Solid state, Radial-leaded product ideal for up to 90V

**Operation Current:** 100m~900mA

**Maximum Voltage:** 90V

**Temperature Range:** -40℃ to 85℃

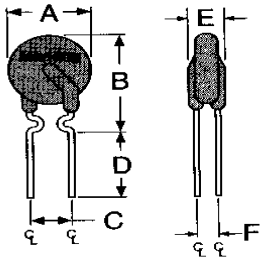
**Agency Recognition:** UL (E211981)
C-UL(E211981)

## Electrical Characteristics (23℃)

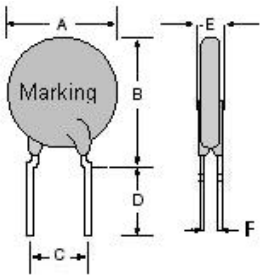
| Part Number | Hold Current | Trip Current | Max.Time to Trip | Maximum Current | Rated Voltage | Typical Power | Resistance Tolerance | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | $R_{MIN}$ | $R1_{MAX}$ |
| | $I_H$, A | $I_T$, A | at 5x$I_H$ | $I_{MAX}$, A | $V_{MAX}$,Vdc | Pd, w | Ω | Ω |
| **FBR100(U)** | 0.10 | 0.20 | 10 | 40 | 90 | 0.38 | 2.50 | 7.50 |
| **FBR150(U)** | 0.15 | 0.35 | 10 | 40 | 90 | 0.70 | 2.40 | 7.00 |
| **FBR200(U)** | 0.20 | 0.45 | 10 | 40 | 90 | 0.80 | 1.50 | 4.50 |
| **FBR250(U)** | 0.25 | 0.55 | 10 | 40 | 90 | 0.90 | 1.25 | 3.70 |
| **FBR350(U)** | 0.35 | 0.75 | 10 | 40 | 90 | 1.30 | 0.90 | 2.50 |
| **FBR550(U)** | 0.55 | 1.20 | 12 | 40 | 90 | 1.50 | 0.45 | 1.50 |
| **FBR750(U)** | 0.75 | 1.60 | 13 | 40 | 90 | 1.70 | 0.30 | 1.20 |
| **FBR900(U)** | 0.90 | 2.00 | 20 | 40 | 90 | 2.30 | 0.15 | 0.70 |

$I_H$=Hold current-maximum current at which the device will not trip at 23℃ still air.
$I_T$=Trip current-minimum current at which the device will always trip at 23℃ still air.
$V_{MAX}$=Maximum voltage device can withstand without damage at its rated current.
$I_{MAX}$= Maximum fault current device can withstand without damage at rated voltage ($V_{MAX}$).
Pd=Typical power dissipated from device when in tripped state in 23℃ still air environment.
$R_{MIN}$=Minimum device resistance at 23℃.
$R1_{MAX}$=Maximum device resistance at 23℃, 1 hour after tripping .
Physical specifications:
Lead material: FBR100~FBR900 Tin plated copper, 20 AWG.
Soldering characteristics: MIL-STD-202, Method 208E.
Insulating coating:Flame retardant epoxy, meets UL-94V-0 requirement.

## Production Dimensions (millimeter)



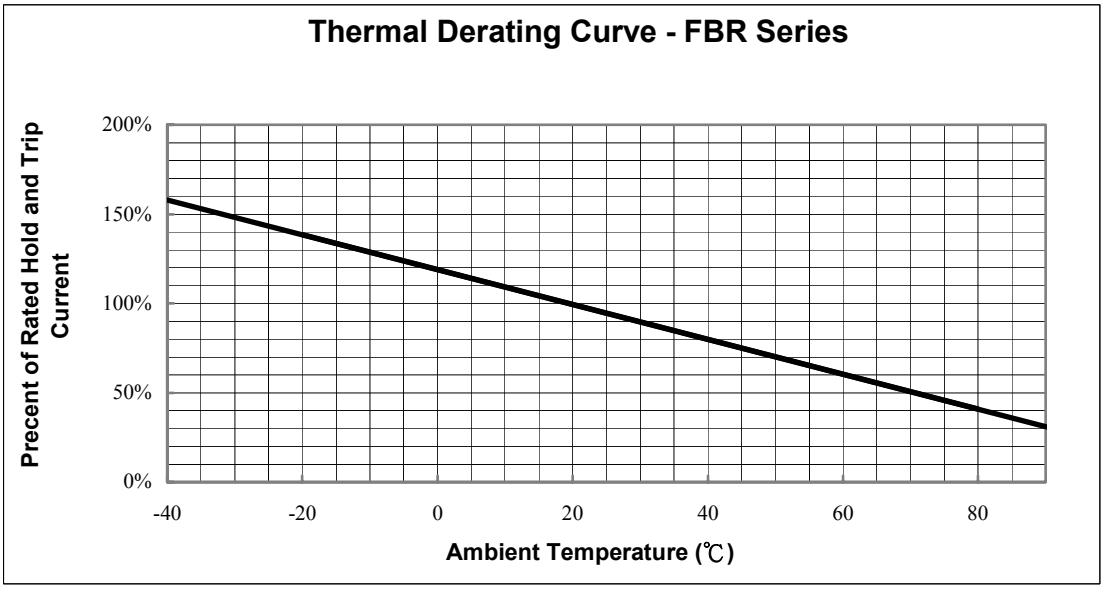

FBR 100-90 ~ FBR 350-90
Lead Size: 24AWG
Φ 0.51 mm Diameter




FBR 550-90 ~ FBR 900-90
Lead Size: 20AWG
Φ 0.81 mm Diameter

| Part Number | A Maximum | B Maximum | C Typical | D Minimum | E Maximum | F Typical |
|---|---|---|---|---|---|---|
| **FBR100 (U)** | 7.4 | 12.7 | 5.1 | 7.6 | 3.6 | 1.4 |
| **FBR150 (U)** | 9.0 | 12.7 | 5.1 | 7.6 | 3.6 | 1.4 |
| **FBR200 (U)** | 9.0 | 12.7 | 5.1 | 7.6 | 3.6 | 1.4 |
| **FBR250 (U)** | 9.0 | 12.7 | 5.1 | 7.6 | 3.6 | 1.4 |
| **FBR350 (U)** | 9.0 | 12.7 | 5.1 | 7.6 | 3.6 | 1.4 |
| **FBR550 (U)** | 10.9 | 14.0 | 5.1 | 7.6 | 3.6 | 1.4 |
| **FBR750 (U)** | 11.9 | 15.5 | 5.1 | 7.6 | 3.6 | 1.4 |
| **FBR900 (U)** | 13.0 | 16.0 | 5.1 | 7.6 | 3.6 | 1.4 |

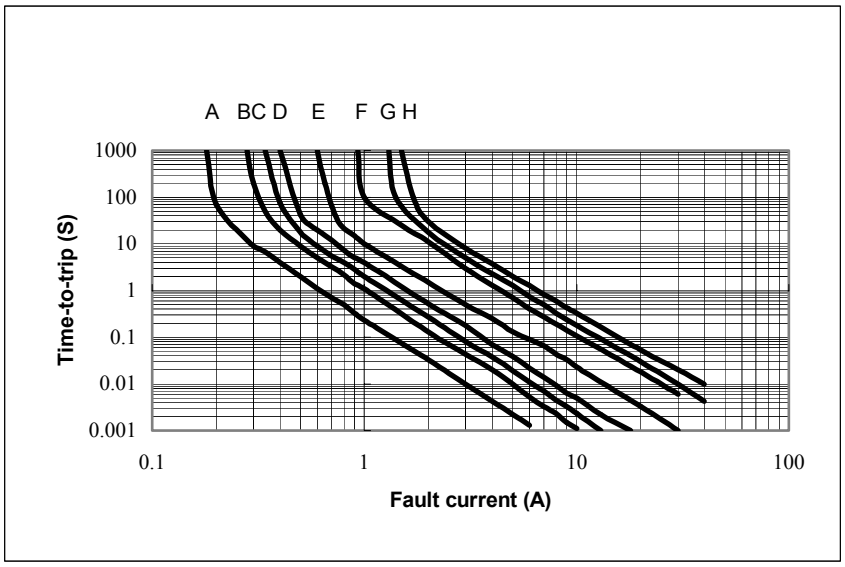
## Thermal Derating Curve



# Radial Leaded PTC
# FBR Series

## Typical Time-To-Trip at 23℃

A = FBR100 (U)
B = FBR150 (U)
C = FBR200 (U)
D = FBR250 (U)
E = FBR350 (U)
F = FBR550 (U)
G = FBR750 (U)
H = FBR900 (U)




## Part Numbering System

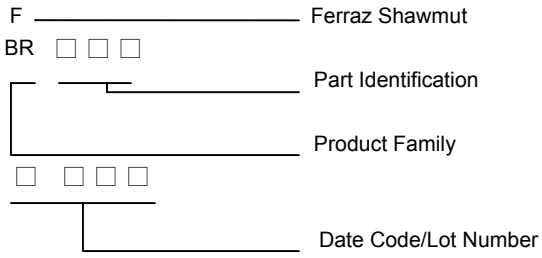
F B R □ □ □ — □ □

Voltage rating

Current rating


Example

## Part Marking System




## Standard Package

| P/N | Pcs /Bag | Reel/Tape |
|---|---|---|
| **FBR100 (U)** | 500 | 2.5K |
| **FBR150 (U)** | 500 | 2.5K |
| **FBR200 (U)** | 500 | 2.5K |
| **FBR250 (U)** | 500 | 2.5K |

| P/N | Pcs /Bag | Reel/Tape |
|---|---|---|
| **FBR350 (U)** | 500 | 2.5K |
| **FBR550 (U)** | 500 | 2K |
| **FBR750 (U)** | 500 | 2K |
| **FBR900 (U)** | 500 | 2K |

**Warning:** -Operation beyond the specified maximum ratings or improper use may result in damage and possible electrical arcing and/or flame.

-PPTC device are intended for occasional overcurrent protection. Application for repeated overcurrent condition and/or prolonged trip are not anticipated.

-Avoid contact of PPTC device with chemical solvent. Prolonged contact will damage the device performance.