# P0080FB-MC

**Thyristors Surge Protection Device**

## Description

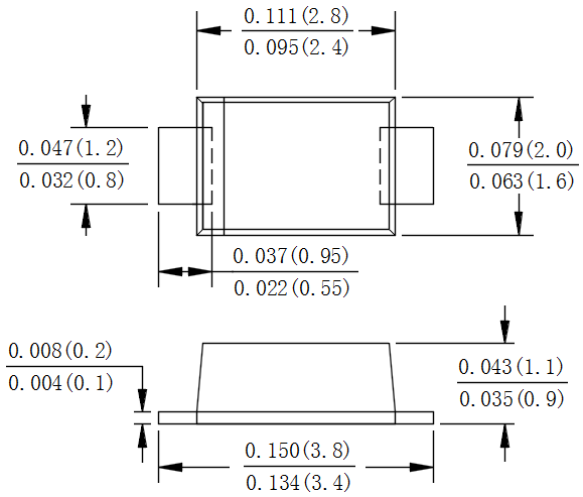
P0080FB-MC is a type of semiconduct component. It is designed to protect baseband equipment from damaging overvoltage transients.

## Features

- Cannot be damaged by voltage.
- Eliminate hysteresis and heat dissipation typically found with clamping devices Eliminate voltage overshoot caused by fast-rising transients.
- Will not fatigue.
- Have low capacitance, making them ideal for high-speed transmission equipment.
- Meets MSL level 1, per J-STD-020.

## Symbol


**SOD-123FL**




Dimensions in inches and (millimeters)

## Absolute Maximum Ratings

At TA=25ºC, RH=45%-75%, unless otherwise noted.

| Characteristic | Symbol | Value | Unit |
|---|---|---|---|
| Repetitive peak pulse current(10/700) | Ipp | 4000 | V |
| Operating Temperature Range, | $T_j$ | -40 ~+150 | ℃ |
| Storage Temperature Range | $T_{STG}$ | -60 ~+150 | ℃ |

## Electrical Characteristics (TA=25℃)

| Characteristic | Symbol | Min | Max | Unit |
|---|---|---|---|---|
| Peak off-state voltage | $V_{DRM}$ | 6 | | V |
| Off-state current at $V_{DRM}$=6V | $I_{DRM}$ | | 5 | uA |
| Switching current | $I_S$ | | 800 | mA |
| Switching voltage at $I_S$=800mA | $V_S$ | | 25 | V |
| On-state current | $I_T$ | | 2.2 | A |
| On-state voltage at $I_T$=2.2A | $V_T$ | | 4 | V |
| Holding current | $I_H$ | 10 | | mA |
| Off-state capacitance | $C_O$ | | 20 | pF |

Notes:

1. All measurements are made at an ambient temperature of 25℃. $I_{PP}$ applies to -40℃through +85℃temperaturerange.

2.Off-state capacitance ($C_O$) is measured at 1 MHz with a 2 V bias and is typical value.

## Typical Characteristics Ta = 25 unless otherwise specified

**FIG.1:** V—I Curve

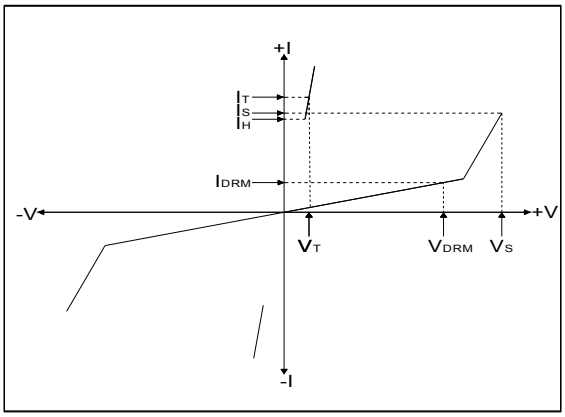



**FIG.2:** tr × td pulse waveform

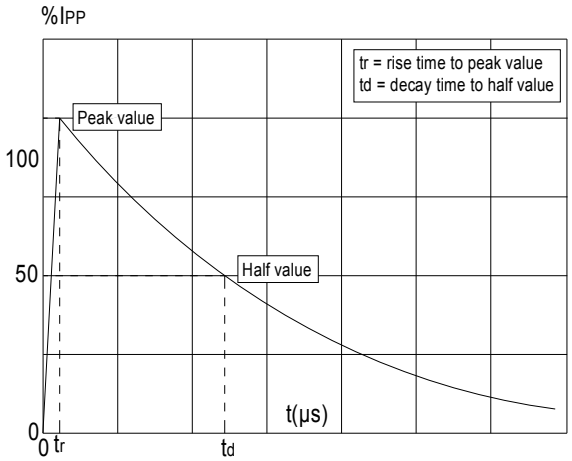



**FIG.3:** Normalized Vs change vs. junction temperature

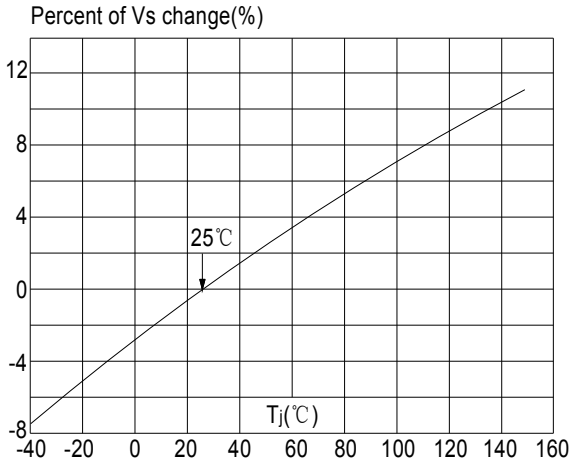
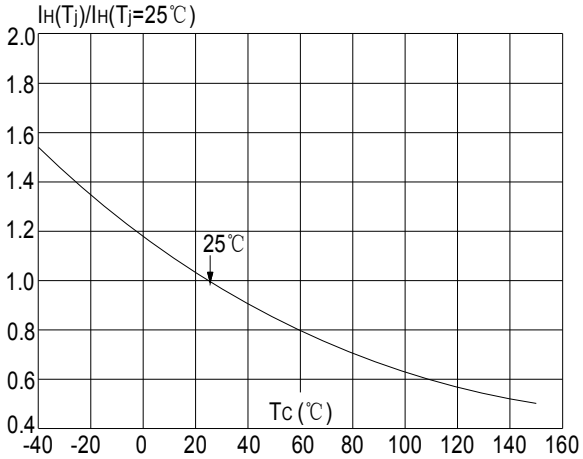



**FIG.4:** Normalized DC holding current vs. case temperature



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