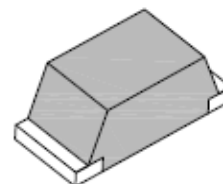


## Surface Mount Super Fast Recovery Rectifier

### Features

- Low leakage current
- For surface mounted applications
- Epoxy Molding Compound has UL Flammability Classification 94V-0
- RoHS Compliance



MFP



### Mechanical Data

|                    |                                                        |
|--------------------|--------------------------------------------------------|
| Case:              | MFP / MINI-SMA, Molded plastic body                    |
| Terminals:         | Solder plated, solderable per MIL-STD-750, Method 2026 |
| Polarity:          | Indicated by cathode band                              |
| Mounting Position: | Any                                                    |
| Weight:            | 0.04 gram                                              |

### Maximum Ratings and Electrical Characteristics ( $T_A=25^{\circ}\text{C}$ unless otherwise noted)

| Symbol  | Description                                         | MFPU<br>1S  | MFPU<br>2S | MFPU<br>3S | MFPU<br>4S | MFPU<br>5S | MFPU<br>6S | Unit   | Conditions                            |
|---------|-----------------------------------------------------|-------------|------------|------------|------------|------------|------------|--------|---------------------------------------|
| VRRM    | Max. Repetitive Peak Reverse Voltage                | 50          | 100        | 150        | 200        | 300        | 400        | V      |                                       |
| VRMS    | Max. RMS Voltage                                    | 35          | 70         | 105        | 140        | 210        | 280        | V      |                                       |
| IF(AV)  | Average Forward Rectified Current                   | 1.0         |            |            |            |            |            | A      | TA = 50°C                             |
| IFSM    | Peak Forward Surge Current                          | 30          |            |            |            |            |            | A      |                                       |
| VF      | Max. Forward Voltage                                | 0.95        |            |            |            | 1.25       |            | V      | IF=1.0A                               |
| IR      | Reverse Current<br>@ VR = VRRM                      | 5.0         |            |            |            |            |            | uA     | TA = 25°C                             |
|         |                                                     | 100         |            |            |            |            |            | uA     | TA = 100°C                            |
| Trr     | Max. Reverse Recovery Time                          | 35          |            |            |            |            |            | V      | IF = 0.5A, IR = 1.0A,<br>Irr = 0.25A. |
| RthJA   | Thermal Resistance                                  | 42          |            |            |            |            |            | °C / W | Junction to ambient                   |
| CJ      | Diode Junction Capacitance                          | 10          |            |            |            |            |            | pF     | F=1MHz<br>and VR= 4V                  |
| TJ,TSTG | Operating Junction and<br>Storage Temperature Range | -55 to +150 |            |            |            |            |            | ° C    |                                       |

# Surface Mount Super Fast Recovery Rectifier

## MFPU1S - MFPU6S

### Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

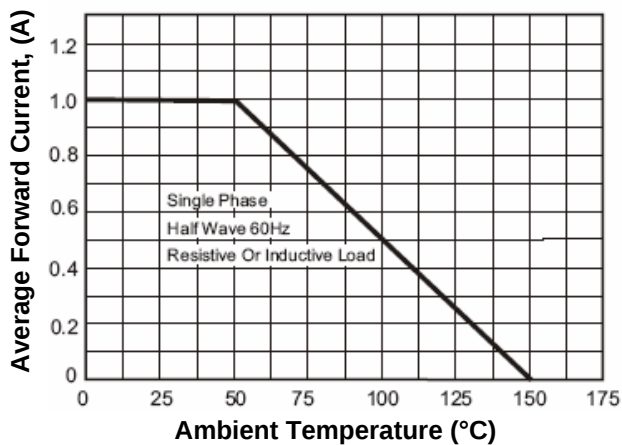


Fig.2- Maximum Non-Repetitive Forward Surge Current

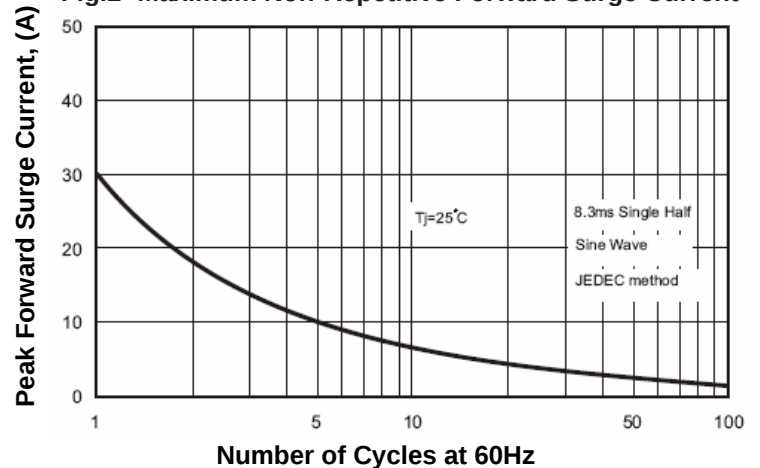


Fig.3- Typical Forward Characteristics

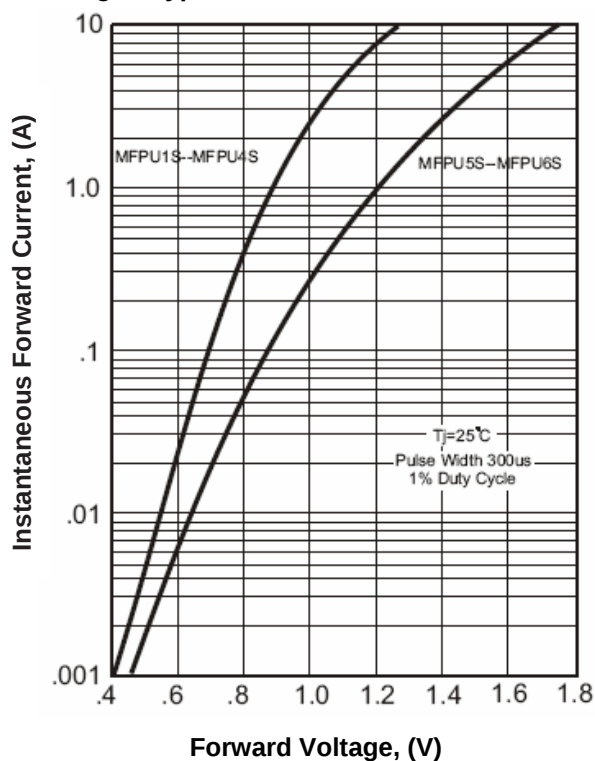
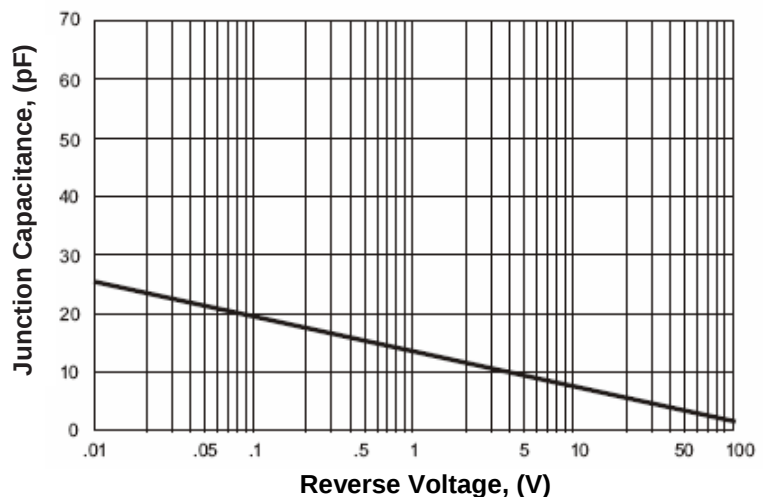


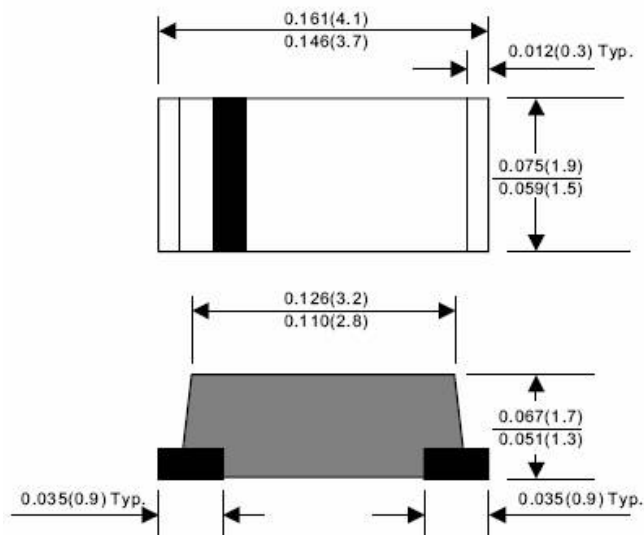
Fig.4- Typical Junction Capacitance



# Surface Mount Super Fast Recovery Rectifier

## MFPU1S - MFPU6S

### Dimensions in inches (mm)



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