

## 4-2 Fast Recovery Diodes

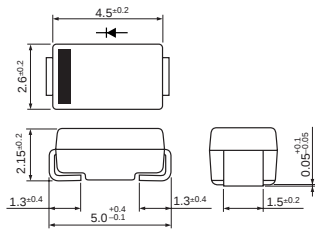
### ●Thru-Hole

| V <sub>RM</sub><br>(V) | I <sub>F</sub> (A)<br>(A)<br><small>Values in parentheses<br/>are for the products<br/>with heatsinks</small> | Package<br>Axial<br><small>(Body Diameter/Lead Diameter)</small> | Part<br>Number    | I <sub>FSM</sub><br>(A)       | T <sub>J</sub><br>(°C) | T <sub>stg</sub><br>(°C) | V <sub>F</sub><br>(V)<br>max | I <sub>F</sub><br>(A) | I <sub>R</sub>                         | I <sub>R</sub> (H)                     | T <sub>J</sub><br>(°C) | trr(1)  | I <sub>F</sub> /I <sub>RP</sub><br>(mA) | trr(2)  | I <sub>F</sub> /I <sub>RP</sub><br>(mA) | R <sub>th</sub> (j-l)<br>R <sub>th</sub> (j-c)<br>(°C/W) | Mass<br>(g) |
|------------------------|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|-------------------|-------------------------------|------------------------|--------------------------|------------------------------|-----------------------|----------------------------------------|----------------------------------------|------------------------|---------|-----------------------------------------|---------|-----------------------------------------|----------------------------------------------------------|-------------|
|                        |                                                                                                               |                                                                  |                   | 50Hz<br>Single Half Sine Wave |                        |                          |                              |                       | (μA)                                   | (μA)                                   |                        | (μs)    |                                         | (μs)    |                                         |                                                          |             |
|                        |                                                                                                               |                                                                  |                   |                               |                        |                          |                              |                       | V <sub>R</sub> =V <sub>RM</sub><br>max | V <sub>R</sub> =V <sub>RM</sub><br>max |                        |         |                                         |         |                                         |                                                          |             |
| 200                    | 0.5                                                                                                           | Axial(φ2.7/φ0.6)                                                 | EU01Z             | 15                            | -40 to +150            |                          | 1.0                          | 0.5                   | 10                                     | 150                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 20                                                       | 0.2         |
|                        | 0.5                                                                                                           | Axial(φ2.7/φ0.78)                                                | EU 1Z             | 15                            | -40 to +150            |                          | 1.0                          | 0.5                   | 10                                     | 150                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 17                                                       | 0.3         |
|                        | 0.5                                                                                                           | Axial(φ2.4/φ0.6)                                                 | AU01Z             | 15                            | -40 to +150            |                          | 1.7                          | 0.5                   | 10                                     | 150                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 22                                                       | 0.13        |
|                        | 0.6                                                                                                           | Axial(φ4.0/φ0.78)                                                | RH 1Z             | 35                            | -40 to +150            |                          | 1.3                          | 0.6                   | 5.0                                    | 70                                     | 150(Ta)                | 4.0     | 10/10                                   | 1.3     | 10/20                                   | 15                                                       | 0.4         |
|                        | 0.7                                                                                                           | Axial(φ2.7/φ0.78)                                                | ES 1Z             | 30                            | -40 to +150            |                          | 2.5                          | 0.8                   | 10                                     | 200                                    | 100(Ta)                | 1.5     | 10/10                                   | 0.6     | 10/20                                   | 17                                                       | 0.3         |
|                        | 0.8                                                                                                           | Axial(φ2.4/φ0.6)                                                 | AU02Z             | 25                            | -40 to +150            |                          | 1.3                          | 0.8                   | 10                                     | 250                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 22                                                       | 0.13        |
|                        | 1.0                                                                                                           | Axial(φ2.7/φ0.6)                                                 | EU02Z             | 15                            | -40 to +150            |                          | 1.4                          | 1.0                   | 10                                     | 300                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 20                                                       | 0.2         |
|                        | 1.0                                                                                                           | Axial(φ2.7/φ0.78)                                                | EU 2Z             | 15                            | -40 to +150            |                          | 1.4                          | 1.0                   | 10                                     | 3000                                   | 150                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 17                                                       | 0.3         |
|                        | 1.0                                                                                                           | Axial(φ4.0/φ0.78)                                                | RU 2Z             | 20                            | -40 to +150            |                          | 1.5                          | 1.0                   | 10                                     | 300                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 15                                                       | 0.4         |
|                        | 3.5                                                                                                           | Axial(φ6.5/φ1.4)                                                 | RU 4Z             | 70                            | -40 to +150            |                          | 1.3                          | 3.5                   | 10                                     | 300                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 8.0                                                      | 1.2         |
|                        | 5.0                                                                                                           | TO-220F(Center-tap)                                              | FMU-12S, R        | 30                            | -40 to +150            |                          | 1.5                          | 2.5                   | 50                                     | 500                                    | 100(Ta)                | 0.4     | 100/100                                 | 0.18    | 100/200                                 | 4.0                                                      | 2.1         |
| 10                     | TO-220F(Center-tap)                                                                                           | FMU-22S, R                                                       | 40                | -40 to +150                   |                        | 1.5                      | 5.0                          | 50                    | 3000                                   | 150                                    | 0.4                    | 100/100 | 0.18                                    | 100/200 | 4.0                                     | 2.1                                                      |             |
| 400                    | 0.25                                                                                                          | Axial(φ2.7/φ0.6)                                                 | EU01              | 15                            | -40 to +150            |                          | 2.5                          | 0.25                  | 10                                     | 150                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 20                                                       | 0.2         |
|                        | 0.25                                                                                                          | Axial(φ2.7/φ0.78)                                                | EU 1              | 15                            | -40 to +150            |                          | 2.5                          | 0.25                  | 10                                     | 150                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 17                                                       | 0.3         |
|                        | 0.25                                                                                                          | Axial(φ4.0/φ0.78)                                                | RU 1              | 15                            | -40 to +150            |                          | 2.5                          | 0.25                  | 10                                     | 200                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 15                                                       | 0.4         |
|                        | 0.5                                                                                                           | Axial(φ2.4/φ0.6)                                                 | AU01              | 15                            | -40 to +150            |                          | 1.7                          | 0.5                   | 10                                     | 150                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 22                                                       | 0.13        |
|                        | 0.6                                                                                                           | Axial(φ2.4/φ0.6)                                                 | AS01              | 20                            | -40 to +150            |                          | 1.5                          | 0.6                   | 10                                     | 50                                     | 100                    | 1.5     | 10/10                                   | 0.6     | 10/20                                   | 22                                                       | 0.13        |
|                        | 0.6                                                                                                           | Axial(φ2.7/φ0.78)                                                | EH 1              | 30                            | -40 to +150            |                          | 1.35                         | 0.6                   | 10                                     | 200                                    | 100(Ta)                | 4.0     | 10/10                                   | 1.3     | 10/20                                   | 17                                                       | 0.3         |
|                        | 0.7                                                                                                           | Axial(φ2.7/φ0.78)                                                | ES 1              | 30                            | -40 to +150            |                          | 2.5                          | 0.8                   | 10                                     | 200                                    | 100(Ta)                | 1.5     | 10/10                                   | 0.6     | 10/20                                   | 20                                                       | 0.2         |
|                        | 0.8                                                                                                           | Axial(φ2.4/φ0.6)                                                 | AU02              | 25                            | -40 to +150            |                          | 1.3                          | 0.8                   | 10                                     | 250                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 22                                                       | 0.13        |
|                        | 1.0                                                                                                           | Axial(φ2.7/φ0.6)                                                 | EU02              | 15                            | -40 to +150            |                          | 1.4                          | 1.0                   | 10                                     | 300                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 20                                                       | 0.2         |
|                        | 1.0                                                                                                           | Axial(φ2.7/φ0.78)                                                | EU 2              | 15                            | -40 to +150            |                          | 1.4                          | 1.0                   | 10                                     | 300                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 17                                                       | 0.3         |
|                        | 1.1                                                                                                           | Axial(φ4.0/φ0.78)                                                | RU 2M             | 20                            | -40 to +150            |                          | 1.2                          | 1.1                   | 10                                     | 300                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 15                                                       | 0.4         |
|                        | 1.5                                                                                                           | Axial(φ4.0/φ0.98)                                                | RU 3              | 20                            | -40 to +150            |                          | 1.5                          | 1.5                   | 10                                     | 400                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 12                                                       | 0.6         |
|                        | 1.5                                                                                                           | Axial(φ4.0/φ0.98)                                                | RU 3M             | 50                            | -40 to +150            |                          | 1.1                          | 1.5                   | 10                                     | 350                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 12                                                       | 0.6         |
|                        | 1.5(3.0)                                                                                                      | Axial(φ6.5/φ1.4)                                                 | RU 4              | 50                            | -40 to +150            |                          | 1.5                          | 3.0                   | 10                                     | 300                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 8.0                                                      | 1.2         |
|                        | 2.0(3.5)                                                                                                      | Axial(φ6.5/φ1.4)                                                 | RU 4M             | 70                            | -40 to +150            |                          | 1.3                          | 3.5                   | 10                                     | 300                                    | 100                    | 0.4     | 100/100                                 | 0.18    | 100/200                                 | 8.0                                                      | 1.2         |
|                        | 5.0                                                                                                           | TO-220F(Center-tap)                                              | FMU-14S, R        | 30                            | -40 to +150            |                          | 1.5                          | 2.5                   | 50                                     | 500                                    | 100(Ta)                | 0.4     | 100/100                                 | 0.18    | 100/200                                 | 4.0                                                      | 2.1         |
|                        | 10                                                                                                            | TO-220F(Center-tap)                                              | FMU-24S, R        | 40                            | -40 to +150            |                          | 1.5                          | 5.0                   | 50                                     | 3000                                   | 150                    | 0.4     | 100/100                                 | 0.18    | 100/200                                 | 4.0                                                      | 2.1         |
|                        | 600                                                                                                           | 0.25                                                             | Axial(φ4.0/φ0.78) | RU 1A                         | 15                     | -40 to +150              |                              | 2.5                   | 0.25                                   | 10                                     | 150                    | 100     | 0.4                                     | 10/10   | 0.18                                    | 10/20                                                    | 15          |
| 0.5                    |                                                                                                               | Axial(φ2.4/φ0.6)                                                 | AU01A             | 15                            | -40 to +150            |                          | 1.7                          | 0.5                   | 10                                     | 150                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 22                                                       | 0.13        |
| 0.6                    |                                                                                                               | Axial(φ4.0/φ0.78)                                                | RF 1A             | 15                            | -40 to +150            |                          | 2.0                          | 0.6                   | 10                                     | 200                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 15                                                       | 0.4         |
| 0.6                    |                                                                                                               | Axial(φ2.4/φ0.6)                                                 | AS01A             | 20                            | -40 to +150            |                          | 1.5                          | 0.6                   | 10                                     | 50                                     | 100                    | 1.5     | 10/10                                   | 0.6     | 10/20                                   | 22                                                       | 0.13        |
| 0.6                    |                                                                                                               | Axial(φ4.0/φ0.78)                                                | RH 1A             | 35                            | -40 to +150            |                          | 1.3                          | 0.6                   | 5.0                                    | 70                                     | 150(Ta)                | 4.0     | 10/10                                   | 1.3     | 10/20                                   | 15                                                       | 0.4         |
| 0.7                    |                                                                                                               | Axial(φ2.7/φ0.6)                                                 | ES01A             | 20                            | -40 to +150            |                          | 3.0                          | 0.8                   | 10                                     | 200                                    | 100(Ta)                | 1.5     | 10/10                                   | 0.6     | 10/20                                   | 20                                                       | 0.2         |
| 0.7                    |                                                                                                               | Axial(φ4.0/φ0.78)                                                | RS 1A             | 30                            | -40 to +150            |                          | 2.5                          | 0.8                   | 10                                     | 2000                                   | 150                    | 1.5     | 10/10                                   | 0.6     | 10/20                                   | 15                                                       | 0.4         |
| 0.8                    |                                                                                                               | Axial(φ2.4/φ0.6)                                                 | AU02A             | 25                            | -40 to +150            |                          | 1.3                          | 0.8                   | 10                                     | 250                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 22                                                       | 0.13        |
| 1.0                    |                                                                                                               | Axial(φ2.7/φ0.6)                                                 | EU02A             | 15                            | -40 to +150            |                          | 1.4                          | 1.0                   | 10                                     | 300                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 20                                                       | 0.2         |
| 1.0                    |                                                                                                               | Axial(φ2.7/φ0.78)                                                | EU 2A             | 15                            | -40 to +150            |                          | 1.4                          | 1.0                   | 10                                     | 300                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 17                                                       | 0.3         |
| 1.0                    |                                                                                                               | Axial(φ4.0/φ0.78)                                                | RU 2              | 20                            | -40 to +150            |                          | 1.5                          | 1.0                   | 10                                     | 300                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 15                                                       | 0.4         |
| 1.1                    |                                                                                                               | Axial(φ4.0/φ0.78)                                                | RU 2AM            | 20                            | -40 to +150            |                          | 1.2                          | 1.1                   | 10                                     | 300                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 15                                                       | 0.4         |
| 1.5                    |                                                                                                               | Axial(φ4.0/φ0.98)                                                | RU 3A             | 20                            | -40 to +150            |                          | 1.5                          | 1.5                   | 10                                     | 400                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 12                                                       | 0.6         |
| 1.5                    |                                                                                                               | Axial(φ4.0/φ0.78)                                                | RU 20A            | 50                            | -40 to +150            |                          | 1.1                          | 1.5                   | 10                                     | 350                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 15                                                       | 0.4         |
| 1.5                    |                                                                                                               | Axial(φ4.0/φ0.98)                                                | RU 3AM            | 50                            | -40 to +150            |                          | 1.1                          | 1.5                   | 10                                     | 350                                    | 100                    | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 12                                                       | 0.6         |
| 1.5(3.0)               |                                                                                                               | Axial(φ6.5/φ1.4)                                                 | RU 4A             | 50                            | -40 to +150            |                          | 1.5                          | 3.0                   | 10                                     | 300                                    | 100(Ta)                | 0.4     | 10/10                                   | 0.18    | 10/20                                   | 8                                                        | 1.2         |
| 3.0                    |                                                                                                               | Axial(φ4.0/φ0.98)                                                | RY 2A             | 50                            | -40 to +150            |                          | 1.15                         | 3.0                   | 10                                     | 1000                                   | 150                    | 0.2     | 100/100                                 | 0.1     | 100/200                                 | 12                                                       | 0.6         |
| 3.0                    |                                                                                                               | TO-220F2Pin                                                      | FMY-1036S         | 50                            | -40 to +150            |                          | 1.15                         | 3.0                   | 10                                     | 1000                                   | 150                    | 0.2     | 100/100                                 | 0.1     | 100/200                                 | 4.0                                                      | 2.1         |
| 5.0                    |                                                                                                               | TO-220F2Pin                                                      | FMU-G16S          | 30                            | -40 to +150            |                          | 1.25                         | 5.0                   | 50                                     | 500                                    | 100(Ta)                | 0.4     | 100/100                                 | 0.18    | 100/200                                 | 4.0                                                      | 2.1         |
| 5.0                    |                                                                                                               | TO-220F(Center-tap)                                              | FMU-16S, R        | 30                            | -40 to +150            |                          | 1.5                          | 2.5                   | 50                                     | 500                                    | 100(Ta)                | 0.4     | 100/100                                 | 0.18    | 100/200                                 | 4.0                                                      | 2.1         |
| 10                     |                                                                                                               | TO-220F(Center-tap)                                              | FMU-26S, R        | 40                            | -40 to +150            |                          | 1.5                          | 5.0                   | 50                                     | 3000                                   | 150                    | 0.4     | 100/100                                 | 0.18    | 100/200                                 | 4.0                                                      | 2.1         |
| 10                     |                                                                                                               | TO-220F2Pin                                                      | FMU-G26S          | 40                            | -40 to +150            |                          | 1.35                         | 10                    | 50                                     | 500                                    | 150                    | 0.4     | 100/100                                 | 0.18    | 100/200                                 | 4.0                                                      | 2.1         |
| 10                     |                                                                                                               | TO-220F2Pin                                                      | FMY-1106S         | 180                           | -40 to +150            |                          | 1.15                         | 10                    | 30                                     | 3000                                   | 150                    | 0.2     | 100/100                                 | 0.1     | 100/200                                 | 4.0                                                      | 2.1         |
| 20                     |                                                                                                               | TO-220F(Center-tap)                                              | FMY-2206S*        | 180                           | -40 to +150            |                          | 1.15                         | 10                    | 30                                     | 3000                                   | 150                    | 0.2     | 100/100                                 | 0.1     | 100/200                                 | 4.0                                                      | 2.1         |

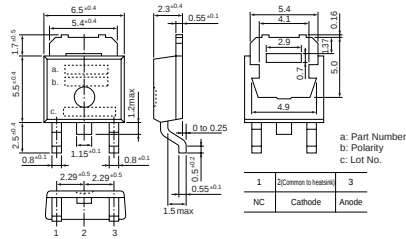
\*Under development

## Package Type (Dimensions)

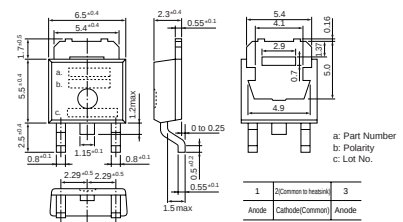
### No. 1 Surface-Mount (SJP)



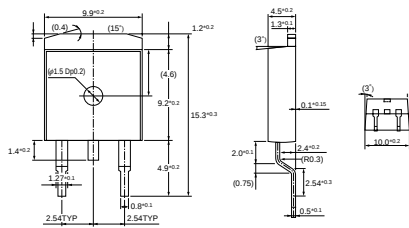
### No. 2 Surface-Mount (D pack)



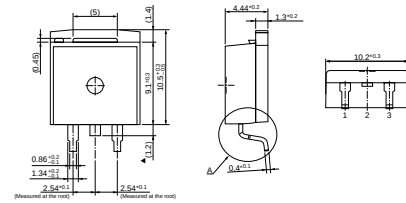
### No. 3 Surface-Mount (D pack) Center-tap



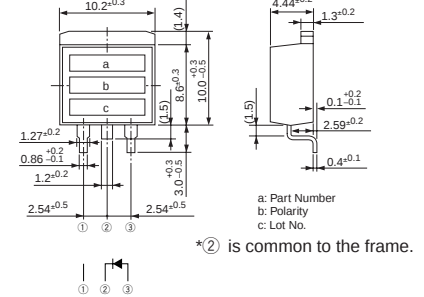
### No. 4 Surface-Mount (TO263)



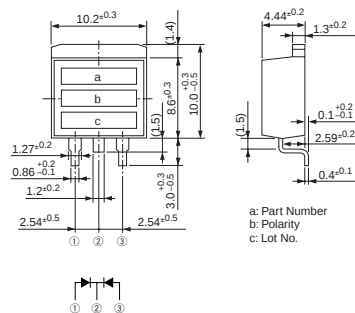
### No. 5 Surface-Mount (TO220S) MPL-102S, MP2-202S, MPL-1036



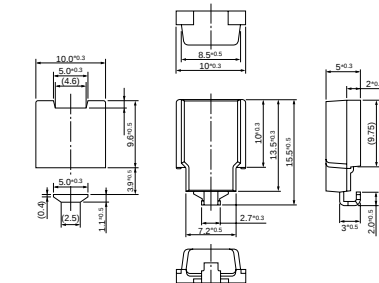
### No. 6 Surface-Mount (TO220S)



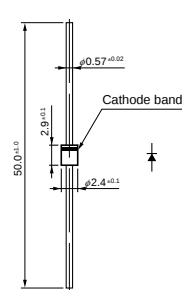
### No. 7 Surface-Mount (TO220S) Center-tap



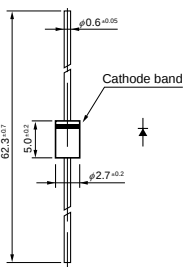
### No. 8 Surface-Mount (SZ-10)



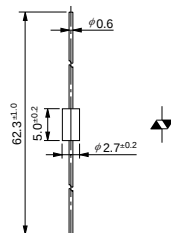
### No. 9 Axial (φ2.4/φ0.6)



### No. 10 Axial (φ2.7/φ0.6)



### No. 11 Axial (φ2.7/φ0.6) Silicon Varistors (Symmetrical)



### No. 12 Axial (φ2.7/φ0.78)

