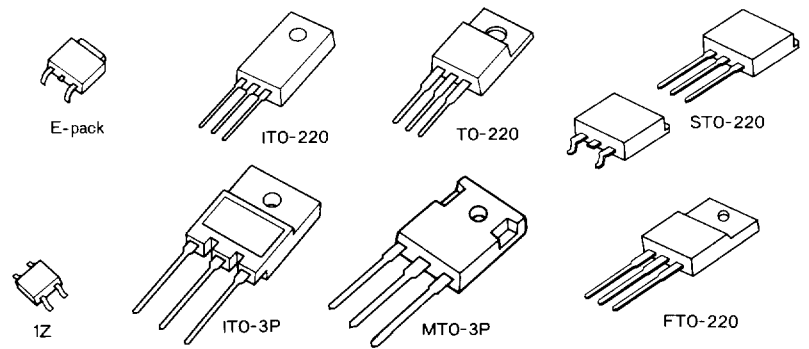


# Schottky Barrier Diodes

High frequency rectifying



## Twin Diodes

| Type No.       | Absolute Maximum Ratings |                       |                                      |                         |                          |                        | Electrical Characteristics     |                                     |  |                                 |                                    | Remarks  | Outline |              |     |      |      |      |
|----------------|--------------------------|-----------------------|--------------------------------------|-------------------------|--------------------------|------------------------|--------------------------------|-------------------------------------|--|---------------------------------|------------------------------------|----------|---------|--------------|-----|------|------|------|
|                | V <sub>RM</sub><br>[V]   | I <sub>o</sub><br>[A] | Conditions<br>T <sub>c</sub><br>[°C] | I <sub>FSM</sub><br>[A] | T <sub>stg</sub><br>[°C] | T <sub>j</sub><br>[°C] | V <sub>F</sub><br>(max)<br>[V] | Conditions<br>I <sub>F</sub><br>[A] | I <sub>R</sub><br>(max)<br>V <sub>R</sub> =V <sub>RM</sub><br>[mA] | C <sub>j</sub><br>(typ)<br>[pF] | θ <sub>jc</sub><br>(max)<br>[°C/W] |          | Package | Fig.         |     |      |      |      |
| S1ZAS4         | 40                       | 1.2                   | 49*1                                 | 40                      | -40~150                  | 150                    | 0.55                           | 1.0                                 | 1  | 65                              | 25*2                               | *4       | IZ      | 26-2         |     |      |      |      |
| D4SC6M         | 60                       | 4                     | 138                                  | 60                      | -40~150                  | 150                    | 0.58                           | 2                                   | 2  | 120                             | 3.3                                | *1       | ITO-220 | 84-1         |     |      |      |      |
| D5SC4M<br>4MR  | 40                       | 5                     | 136                                  | 50                      | -40~150                  | 150                    | 0.55                           | 2.5                                 | 2.5  | 116                             | 3.3                                | *1<br>*2 |         | 84-2         |     |      |      |      |
| DE5SC3ML<br>4M | 30                       | 5                     | 110*1                                | 90                      | -55~150                  | 150                    | 0.45                           | 2.5                                 | 3.5  | 190                             | 12                                 | *1       | E-pack  | 79-1         |     |      |      |      |
| 4M             | 40                       |                       | 101                                  | 80                      | -40~150                  | 150                    | 0.55                           |                                     | 3.2  | 150                             |                                    |          |         |              |     |      |      |      |
| 6M             | 60                       |                       | 92                                   |                         |                          |                        | 0.58                           |                                     | 2.5  | 130                             |                                    |          |         |              |     |      |      |      |
| DE5PC3         | 30                       | 5                     | 90                                   | 90                      | -55~125                  | 125                    | 0.49                           | 2.5                                 | 6  |                                 |                                    |          |         |              |     |      |      |      |
| ★SF5SC3L<br>4  | 30                       | 5                     |                                      |                         | -55~150                  | 150                    | 0.45                           | 2.5                                 | 3.5  |                                 | 2.0                                | *1       | FTO-220 | 86-1         |     |      |      |      |
| 4              | 40                       |                       | 140                                  | 80                      | -40~150                  |                        | 0.55                           | 2.5                                 | 2.5  | 116                             | 2.3                                |          |         |              |     |      |      |      |
| D10SC4M<br>4MR | 40                       | 10                    | 123                                  | 100                     | -40~150                  | 150                    | 0.55                           | 5                                   | 3.5  | 180                             | 3.3                                | *1       | ITO-220 | 84-1         |     |      |      |      |
| 4MR            |                          |                       |                                      |                         |                          |                        |                                |                                     |  |                                 |                                    |          |         |              |     |      | *2   | 84-2 |
| 6M             | 60                       |                       | 120                                  |                         |                          |                        |                                |                                     |  | 0.58                            |                                    |          |         | 4.5          | 200 | *1   | 84-1 |      |
| 6MR            | 60                       |                       |                                      |                         |                          |                        |                                |                                     |  |                                 |                                    |          |         |              |     | *2   | 84-2 |      |
| 9M             | 90                       |                       | 111                                  |                         |                          | 0.75                   |                                | 3.0                                 | 185  |                                 | *1                                 |          | 84-1    |              |     |      |      |      |
| D10SD6M        | 60                       | 10                    | 120                                  | 100                     | -40~150                  | 150                    | 0.58                           | 5                                   | 4.5  | 200                             | 3.3                                | *3       |         | 84-3         |     |      |      |      |
| S10SC4M<br>4MR | 40                       | 10                    | 125                                  | 100                     | -40~150                  | 150                    | 0.55                           | 5                                   | 3.5  | 180                             | 3                                  | *1<br>*2 | TO-220  | 82-1<br>82-2 |     |      |      |      |
| DE10PC3        | 30                       | 10                    | 97                                   | 80                      | -55~125                  | 125                    | 0.4                            | 4                                   | 10   | 290                             | 4                                  |          |         |              |     |      |      |      |
| DE10SC3L<br>4  | 30                       | 10                    | 124                                  | 100                     | -55~150                  | 150                    | 0.45                           | 4                                   | 5  | 290                             | 4                                  | *1       | E-pack  | 79-1         |     |      |      |      |
| 4              | 40                       |                       | 132                                  | 100                     |                          |                        | 0.55                           | 5                                   | 3.5  | 210                             | 4                                  |          |         |              |     |      |      |      |
| DF10SC4M<br>6  | 40                       | 10                    | 125                                  | 100                     | -40~150                  | 150                    | 0.55                           | 5                                   | 3.5  | 180                             | 3                                  | *1       | STO-220 | 76-1         |     |      |      |      |
| 6              | 60                       |                       | 132                                  | 150                     | -55~150                  |                        | 0.58                           |                                     | 4.5  | 260                             | 2.0                                |          |         |              |     |      |      |      |
| 9              | 90                       |                       | 131                                  |                         |                          |                        | 0.75                           |                                     | 3  | 185                             | 1.2                                |          |         |              |     |      |      |      |
| SF10SC3L<br>4  | 30                       | 10                    | 139                                  | 150                     | -55~150                  | 150                    | 0.45                           | 4                                   | 5  | 310                             | 2.3                                | *1       | FTO-220 | 86-1         |     |      |      |      |
| 4              | 40                       |                       | 131                                  |                         |                          |                        |                                |                                     | 0.55   |                                 |                                    | 3.5      |         | 180          | *2  | 86-2 |      |      |
| 4R             | 40                       |                       | 131                                  |                         |                          |                        | -40~150                        |                                     |  |                                 |                                    |          |         |              |     |      |      |      |
| 6              | 60                       |                       | 129                                  |                         |                          |                        |                                |                                     | 0.58   |                                 |                                    | 4.5      |         | 260          | *1  | 86-1 |      |      |
| 9              | 90                       | 120                   |                                      |                         | 0.75                     |                        |                                | 3.0                                 | 185  |                                 |                                    |          |         |              |     |      |      |      |
| S15SC4M        | 40                       | 15                    | 135                                  | 170                     | -40~150                  | 150                    | 0.55                           | 7.5                                 | 5  | 340                             | 1.2                                | *1       | MTO-3P  | 88-1         |     |      |      |      |
| D15SCA4M       | 40                       | 15                    | 117                                  | 150                     | -40~150                  | 150                    | 0.55                           | 7.5                                 | 5  | 340                             | 2.8                                | *1       | ITO-220 | 84-1         |     |      |      |      |
| S15SCA4M       | 40                       | 15                    | 129                                  | 150                     | -40~150                  | 150                    | 0.55                           | 7.5                                 | 5  | 340                             | 1.7                                | *1       | TO-220  | 82-1         |     |      |      |      |
| DF15SC4M       | 40                       | 15                    | 129                                  | 150                     | -40~150                  | 150                    | 0.55                           | 7.5                                 | 5  | 340                             | 1.7                                | *1       | STO-220 | 76-1         |     |      |      |      |
| D20SC9M        | 90                       | 20                    | 111                                  | 200                     | -40~150                  | 150                    | 0.75                           | 10                                  | 10   | 370                             | 1                                  | *1       | ITO-3P  | 90-1         |     |      |      |      |
| S20SC4M<br>9M  | 40                       | 20                    | 129                                  | 170                     | -40~150                  | 150                    | 0.55                           | 7.5                                 | 5  | 340                             | 1.2                                | *1       | MTO-3P  | 88-1         |     |      |      |      |
| 9M             | 90                       |                       | 125                                  | 200                     |                          |                        | 0.75                           | 10                                  | 10   | 370                             | 1                                  |          |         |              |     |      |      |      |
| DF20SC4M       | 40                       | 20                    | 122                                  | 230                     | -40~150                  | 150                    | 0.55                           | 10                                  | 7.5  | 390                             | 1.7                                | *1       |         |              |     |      |      |      |
| DF20PC3M       | 30                       | 20                    | 105*1                                | 200                     | -55~125                  | 125                    | 0.4                            | 8                                   | 35   | 560                             | 1.6                                | *1       | STO-220 | 76-1         |     |      |      |      |
| DF20SC9M       | 90                       | 20                    | 111                                  | 200                     | -40~150                  | 150                    | 0.75                           | 10                                  | 10   | 370                             | 1.6                                | *1       | STO-220 | 76-1         |     |      |      |      |
| SF20SC3L<br>4  | 30                       | 20                    | 125                                  | 230                     | -55~150                  | 150                    | 0.45                           | 8                                   | 9  | 570                             | 2.0                                | *1       | FTO-220 | 86-1         |     |      |      |      |
| 4              | 40                       |                       | 117                                  |                         |                          |                        |                                | 0.55                                | 10   | 7.5                             |                                    |          |         |              | 390 |      |      |      |
| D25SC6M<br>6MR | 60                       | 25                    | 117                                  | 300                     | -40~150                  | 150                    | 0.58                           | 12.5                                | 10   | 490                             | 1.5                                | *1<br>*2 | ITO-3P  | 90-1<br>90-2 |     |      |      |      |
| S25SC6M        | 60                       | 25                    | 128                                  | 300                     | -40~150                  | 150                    | 0.58                           | 12.5                                | 10   | 490                             | 1                                  | *1       | MTO-3P  | 88-1         |     |      |      |      |
| DF25SC6M       | 60                       | 25                    | 115                                  | 300                     | -40~150                  | 150                    | 0.58                           | 12.5                                | 10   | 490                             | 1.6                                | *1       | STO-220 | 76-1         |     |      |      |      |
| D30SC4M        | 40                       | 30                    | 112                                  | 300                     | -40~150                  | 150                    | 0.55                           | 15                                  | 10   | 590                             | 1.6                                | *1       | ITO-3P  | 90-1         |     |      |      |      |
| S30SC4M        | 40                       | 30                    | 126                                  | 300                     | -40~150                  | 150                    | 0.55                           | 15                                  | 10   | 590                             | 1                                  | *1       | MTO-3P  | 88-1         |     |      |      |      |

☆: New products

★: Under development

\*1: T<sub>a</sub>

\*2: θ<sub>j</sub>

\*1: Center-tap



\*2: Center-tap (R)







\*3: Doubler type



\*4:



| Type No.  | Absolute Maximum Ratings |                       |                                      |                         |                          |                        | Electrical Characteristics     |                                     |  |                                 |                                    | Remarks | Outline |      |
|-----------|--------------------------|-----------------------|--------------------------------------|-------------------------|--------------------------|------------------------|--------------------------------|-------------------------------------|--|---------------------------------|------------------------------------|---------|---------|------|
|           | V <sub>RM</sub><br>[V]   | I <sub>o</sub><br>[A] | Conditions<br>T <sub>c</sub><br>[°C] | I <sub>FSM</sub><br>[A] | T <sub>stg</sub><br>[°C] | T <sub>j</sub><br>[°C] | V <sub>F</sub><br>(max)<br>[V] | Conditions<br>I <sub>F</sub><br>[A] | I <sub>R</sub><br>(max)<br>V <sub>R</sub> =V <sub>RM</sub><br>[mA] | C <sub>j</sub><br>(typ)<br>[pF] | θ <sub>jc</sub><br>(max)<br>[°C/W] |         | Package | Fig. |
|           |                          |                       |                                      |                         |                          |                        |                                |                                     |  |                                 |                                    |         |         |      |
| DF30SC3ML | 30                       | 30                    | 119                                  | 350                     | -55~150                  | 150                    | 0.45                           | 12.5                                | 10   | 820                             | 1.6                                | *1      | STO-220 | 76-1 |
| 4M        | 40                       |                       | 112                                  | 360                     | -40~150                  |                        | 0.55                           |                                     |  | 15                              |                                    |         |         |      |
| DF30PC3M  | 30                       | 30                    | 97                                   | 300                     | -55~125                  | 125                    | 0.4                            | 10                                  | 50   | —                               | 1.6                                |         |         |      |
| SF30SC3L  | 30                       | 30                    | 111                                  | 350                     | -55~150                  | 150                    | 0.45                           | 12.5                                | 15   | 960                             | 2                                  | *1      | FTO-220 | 86-1 |
| 4         | 40                       |                       | 102                                  | 300                     |                          |                        | 590                            |                                     |  |                                 |                                    |         |         |      |
| 6         | 60                       |                       | 107                                  | 250                     |                          |                        | 500                            |                                     |  |                                 |                                    |         |         |      |
| DF40SC3L  | 30                       | 40                    | 112                                  | 400                     | -55~150                  | 150                    | 0.45                           | 15                                  | 17   | 1200                            | 1.5                                | *1      | STO-220 | 78-1 |
| 4         | 40                       |                       | 106                                  | 350                     | 0.55                     |                        | 20                             | 860                                 |  |                                 |                                    |         |         |      |
| ☆DF40PC3  | 30                       | 40                    | 105                                  | 350                     | -55~150                  | 125                    | 0.4                            | 15                                  | 45   | 1160                            | 0.8                                | *1      | STO-220 | 76-1 |
| S60SC3ML  | 30                       | 60                    | 130                                  | 500                     | -40~150                  | 150                    | 0.48                           | 30                                  | 25   | 1600                            | 0.5                                | *1      | MTO-3P  | 88-1 |
| 4M        | 40                       |                       | 126                                  |                         |                          |                        | 0.55                           |                                     |  | 1000                            |                                    |         |         |      |
| 6M        | 60                       |                       | 118                                  |                         |                          |                        | 0.67                           |                                     |  | 850                             |                                    |         |         |      |

\* : Ta      \*1 : Center-tap       \*2 : Center-tap (R)       \*3 : Doubler type       \*4 : 

☆ : New products

## Diode Modules

| Type No. | Absolute Maximum Ratings |                       |                                      |                         |                          |                        | Electrical Characteristics     |                                     |  |                                 |                                    | Remarks | Outline |      |     |     |     |    |     |    |     |   |
|----------|--------------------------|-----------------------|--------------------------------------|-------------------------|--------------------------|------------------------|--------------------------------|-------------------------------------|--|---------------------------------|------------------------------------|---------|---------|------|-----|-----|-----|----|-----|----|-----|---|
|          | V <sub>RM</sub><br>[V]   | I <sub>o</sub><br>[A] | Conditions<br>T <sub>c</sub><br>[°C] | I <sub>FSM</sub><br>[A] | T <sub>stg</sub><br>[°C] | T <sub>j</sub><br>[°C] | V <sub>F</sub><br>(max)<br>[V] | Conditions<br>I <sub>F</sub><br>[A] | I <sub>R</sub><br>(max)<br>V <sub>R</sub> =V <sub>RM</sub><br>[mA] | C <sub>j</sub><br>(typ)<br>[pF] | θ <sub>jc</sub><br>(max)<br>[°C/W] |         | Package | Fig. |     |     |     |    |     |    |     |   |
|          |                          |                       |                                      |                         |                          |                        |                                |                                     |  |                                 |                                    |         |         |      |     |     |     |    |     |    |     |   |
| D120SC3M | 30                       | 120                   | 99                                   | 800                     | -40~125                  | 125                    | 0.5                            | 60                                  | 80   | 2.9                             | 0.34                               | —       | Modules | 48   |     |     |     |    |     |    |     |   |
| 4M       | 40                       |                       | 90                                   |                         |                          |                        | 0.58                           |                                     |  | 2.1                             |                                    |         |         |      |     |     |     |    |     |    |     |   |
| 6M       | 60                       |                       | 85                                   |                         |                          |                        | 0.67                           |                                     |  | 2.2                             |                                    |         |         |      |     |     |     |    |     |    |     |   |
| 7M       | 70                       |                       | 84                                   |                         |                          |                        | 80                             |                                     |  | 2.2                             |                                    |         |         |      |     |     |     |    |     |    |     |   |
| D180SC3M | 30                       | 180                   | 94                                   | 800                     | -40~125                  | 125                    | 0.5                            | 60                                  | 80   | 2.9                             | 0.25                               | —       | Modules | 50   |     |     |     |    |     |    |     |   |
| 4M       | 40                       |                       | 83                                   |                         |                          |                        | 0.58                           |                                     |  | 40                              |                                    |         |         |      | 2.1 |     |     |    |     |    |     |   |
| 6M       | 60                       |                       | 78                                   |                         |                          |                        | 0.67                           |                                     |  | 80                              |                                    |         |         |      | 2.2 |     |     |    |     |    |     |   |
| 7M       | 70                       |                       | 77                                   |                         |                          |                        | 80                             |                                     |  | 2.2                             |                                    |         |         |      |     |     |     |    |     |    |     |   |
| D240SC3M | 30                       | 240                   | 90                                   | 1600                    | -40~125                  | 125                    | 0.44                           | 60                                  | 160  | 5.8                             | 0.23                               | Note 1  | Modules | 48   |     |     |     |    |     |    |     |   |
| 3MH      | 30                       |                       | 77                                   |                         |                          |                        | 4.2                            |                                     |  |                                 |                                    |         |         |      |     |     |     |    |     |    |     |   |
| 4M       | 40                       |                       |                                      |                         |                          |                        |                                |                                     |  | 80                              |                                    |         |         |      | 4.4 |     |     |    |     |    |     |   |
| 4MH      | 40                       |                       |                                      |                         |                          |                        |                                |                                     |  |                                 |                                    |         |         |      |     | 160 | 4.4 |    |     |    |     |   |
| 6M       | 60                       |                       |                                      |                         |                          |                        |                                |                                     |  |                                 |                                    |         |         |      |     |     |     | 70 | 4.4 |    |     |   |
| 6MH      | 60                       |                       |                                      |                         |                          |                        |                                |                                     |  |                                 |                                    |         |         |      |     |     |     |    |     | 70 | 4.4 |   |
| 7M       | 70                       | 70                    |                                      | 4.4                     |                          |                        |                                |                                     |  |                                 |                                    |         |         |      |     |     |     |    |     |    |     |   |
| D360SC3M | 30                       |                       | 360                                  |                         | 81                       | 1600                   | -40~125                        | 125                                 | 0.44   |                                 | 60                                 | 160     | 5.8     | 0.18 |     |     |     |    |     |    |     | — |
| 4M       | 40                       |                       |                                      |                         | 64                       |                        |                                |                                     | 0.5  | 80                              |                                    |         | 4.2     |      |     |     |     |    |     |    |     |   |
| 5M       | 50                       |                       |                                      |                         | 63                       |                        |                                |                                     | 0.6  | 160                             |                                    |         | 4.4     |      |     |     |     |    |     |    |     |   |
| 6M       | 60                       |                       |                                      |                         | 58                       |                        |                                |                                     | 0.67   | 80                              |                                    |         | 4.4     |      |     |     |     |    |     |    |     |   |
| 7M       | 70                       |                       |                                      |                         | 57                       |                        |                                |                                     | 160  | 4.4                             |                                    |         |         |      |     |     |     |    |     |    |     |   |

Note 1 : This module is open, when it's damaged.