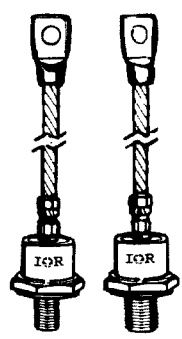


# Rectifiers

## Fast Recovery

90-110 Amps

**International**  
**IOR Rectifier**

| Part Number  | V <sub>RRM</sub><br>(V) | I <sub>F(AV)</sub> @ T <sub>C</sub> |      | I <sub>FSM</sub> (1) |              | V <sub>FM</sub> @<br>$\pi \times I_{F(AV)}$<br>(V) | R <sub>thJC</sub> DC<br>(°C/W) | t <sub>rr</sub><br>(2)<br>(ns) | Case<br>Outline<br>Number<br>(6) | Notes       | Case Style                                                                                                                         |
|--------------|-------------------------|-------------------------------------|------|----------------------|--------------|----------------------------------------------------|--------------------------------|--------------------------------|----------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------|
|              |                         | (A)                                 | (°C) | 50 Hz<br>(A)         | 60 Hz<br>(A) |                                                    |                                |                                |                                  |             |                                                                                                                                    |
| R18SGF6A     | 600                     | 110                                 | 85   | 3250                 | 3400         | 1.49                                               | 0.250                          | 900                            | R8 A                             | (5)<br>(13) | DO-205AA<br>(DO-8)<br>                          |
| R18SGF6B     | 600                     | 110                                 | 85   | 3250                 | 3400         | 1.49                                               | 0.250                          | 1100                           |                                  |             |                                                                                                                                    |
| R18SGF8A     | 800                     | 110                                 | 85   | 3250                 | 3400         | 1.49                                               | 0.250                          | 900                            |                                  |             |                                                                                                                                    |
| R18SGF8B     | 800                     | 110                                 | 85   | 3250                 | 3400         | 1.49                                               | 0.250                          | 1100                           |                                  |             |                                                                                                                                    |
| R18SGF10A    | 1000                    | 105                                 | 85   | 3050                 | 3200         | 1.54                                               | 0.250                          | 1000                           |                                  |             |                                                                                                                                    |
| R18SGF10B    | 1000                    | 105                                 | 85   | 3050                 | 3200         | 1.54                                               | 0.250                          | 1200                           |                                  |             |                                                                                                                                    |
| R18SGF12A    | 1200                    | 105                                 | 85   | 3050                 | 3200         | 1.54                                               | 0.250                          | 1000                           |                                  |             |                                                                                                                                    |
| R18SGF12B    | 1200                    | 105                                 | 85   | 3050                 | 3200         | 1.54                                               | 0.250                          | 1200                           |                                  |             |                                                                                                                                    |
| R18SF14A     | 1400                    | 100                                 | 85   | 2770                 | 2900         | 1.67                                               | 0.250                          | 1250                           |                                  |             |                                                                                                                                    |
| R18SF14B     | 1400                    | 100                                 | 85   | 2770                 | 2900         | 1.67                                               | 0.250                          | 1500                           |                                  |             |                                                                                                                                    |
| R18SF16A     | 1600                    | 100                                 | 85   | 2770                 | 2900         | 1.67                                               | 0.250                          | 1250                           | R9 A                             | (5)<br>(13) | DO-205AA<br>(DO-8)<br>                          |
| R18SF16B     | 1600                    | 100                                 | 85   | 2770                 | 2900         | 1.67                                               | 0.250                          | 1500                           |                                  |             |                                                                                                                                    |
| R18SF18A     | 1800                    | 90                                  | 85   | 2390                 | 2500         | 1.82                                               | 0.250                          | 2000                           |                                  |             |                                                                                                                                    |
| R18SF18B     | 1800                    | 90                                  | 85   | 2390                 | 2500         | 1.82                                               | 0.250                          | 2400                           |                                  |             |                                                                                                                                    |
| R18SF20A     | 2000                    | 90                                  | 85   | 2390                 | 2500         | 1.82                                               | 0.250                          | 2000                           |                                  |             |                                                                                                                                    |
| R18SF20B     | 2000                    | 90                                  | 85   | 2390                 | 2500         | 1.82                                               | 0.250                          | 2400                           |                                  |             |                                                                                                                                    |
| R18CGF6A     | 600                     | 110                                 | 85   | 3250                 | 3400         | 1.49                                               | 0.250                          | 900                            | R10 A                            | (5)<br>(13) | DO-205AC<br>(DO-30)<br>                        |
| R18CGF6B     | 600                     | 110                                 | 85   | 3250                 | 3400         | 1.49                                               | 0.250                          | 1100                           |                                  |             |                                                                                                                                    |
| R18CGF8A     | 800                     | 110                                 | 85   | 3250                 | 3400         | 1.49                                               | 0.250                          | 900                            |                                  |             |                                                                                                                                    |
| R18CGF8B     | 800                     | 110                                 | 85   | 3250                 | 3400         | 1.49                                               | 0.250                          | 1100                           |                                  |             |                                                                                                                                    |
| R18CGF10A    | 1000                    | 105                                 | 85   | 3050                 | 3200         | 1.54                                               | 0.250                          | 1000                           |                                  |             |                                                                                                                                    |
| R18CGF10B    | 1000                    | 105                                 | 85   | 3050                 | 3200         | 1.54                                               | 0.250                          | 1200                           |                                  |             |                                                                                                                                    |
| R18CGF12A    | 1200                    | 105                                 | 85   | 3050                 | 3200         | 1.54                                               | 0.250                          | 1000                           |                                  |             |                                                                                                                                    |
| R18CGF12B    | 1200                    | 105                                 | 85   | 3050                 | 3200         | 1.54                                               | 0.250                          | 1200                           |                                  |             |                                                                                                                                    |
| R18CF14A     | 1400                    | 100                                 | 85   | 2770                 | 2900         | 1.67                                               | 0.250                          | 1250                           |                                  |             |                                                                                                                                    |
| R18CF14B     | 1400                    | 100                                 | 85   | 2770                 | 2900         | 1.67                                               | 0.250                          | 1500                           |                                  |             |                                                                                                                                    |
| R18CF16A     | 1600                    | 100                                 | 85   | 2770                 | 2900         | 1.67                                               | 0.250                          | 1250                           | R11 A                            | (5)<br>(13) | DO-205AC<br>(DO-30)<br>                        |
| R18CF16B     | 1600                    | 100                                 | 85   | 2770                 | 2900         | 1.67                                               | 0.250                          | 1500                           |                                  |             |                                                                                                                                    |
| R18CF18A     | 1800                    | 90                                  | 85   | 2390                 | 2500         | 1.82                                               | 0.250                          | 2000                           |                                  |             |                                                                                                                                    |
| R18CF18B     | 1800                    | 90                                  | 85   | 2390                 | 2500         | 1.82                                               | 0.250                          | 2400                           |                                  |             |                                                                                                                                    |
| R18CF20A     | 2000                    | 90                                  | 85   | 2390                 | 2500         | 1.82                                               | 0.250                          | 2000                           |                                  |             |                                                                                                                                    |
| R18CF20B     | 2000                    | 90                                  | 85   | 2390                 | 2500         | 1.82                                               | 0.250                          | 2400                           |                                  |             |                                                                                                                                    |
| SD103N02S05P | 200                     | 110                                 | 85   | 3000                 | 3141         | 2.23                                               | 0.160                          | 500                            | (4)                              | (3)         | DO-205AA<br>(DO-8)<br>DO-205AC<br>(DO-30)<br> |
| SD103N04S05P | 400                     |                                     |      |                      |              |                                                    |                                | 500                            |                                  |             |                                                                                                                                    |
| SD103N06S05P | 600                     |                                     |      |                      |              |                                                    |                                | 500                            |                                  |             |                                                                                                                                    |
| SD103N08S05P | 800                     |                                     |      |                      |              |                                                    |                                | 500                            |                                  |             |                                                                                                                                    |
| SD103N10S05P | 1000                    |                                     |      |                      |              |                                                    |                                | 500                            |                                  |             |                                                                                                                                    |
| SD103N02S10P | 200                     |                                     |      |                      |              |                                                    |                                | 1000                           |                                  |             |                                                                                                                                    |
| SD103N04S10P | 400                     |                                     |      |                      |              |                                                    |                                | 1000                           |                                  |             |                                                                                                                                    |
| SD103N06S10P | 600                     |                                     |      |                      |              |                                                    |                                | 1000                           |                                  |             |                                                                                                                                    |
| SD103N08S10P | 800                     |                                     |      |                      |              |                                                    |                                | 1000                           |                                  |             |                                                                                                                                    |
| SD103N10S10P | 1000                    |                                     |      |                      |              |                                                    |                                | 1000                           |                                  |             |                                                                                                                                    |
| SD103N12S10P | 1200                    |                                     |      |                      |              |                                                    |                                | 1000                           |                                  |             |                                                                                                                                    |
| SD103N14S10P | 1400                    |                                     |      |                      |              |                                                    |                                | 1000                           |                                  |             |                                                                                                                                    |
| SD103N02S15P | 200                     |                                     |      |                      |              |                                                    |                                | 1500                           |                                  |             |                                                                                                                                    |
| SD103N04S15P | 400                     |                                     |      |                      |              |                                                    |                                | 1500                           |                                  |             |                                                                                                                                    |
| SD103N06S15P | 600                     |                                     |      |                      |              |                                                    |                                | 1500                           |                                  |             |                                                                                                                                    |
| SD103N08S15P | 800                     |                                     |      |                      |              |                                                    |                                | 1500                           |                                  |             |                                                                                                                                    |
| SD103N10S15P | 1000                    |                                     |      |                      |              |                                                    |                                | 1500                           |                                  |             |                                                                                                                                    |
| SD103N12S15P | 1200                    |                                     |      |                      |              |                                                    |                                | 1500                           |                                  |             |                                                                                                                                    |
| SD103N14S15P | 1400                    |                                     |      |                      |              |                                                    |                                | 1500                           |                                  |             |                                                                                                                                    |
| SD103N02S20P | 200                     |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N04S20P | 400                     |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N06S20P | 600                     |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N08S20P | 800                     |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N10S20P | 1000                    |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N12S20P | 1200                    |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N14S20P | 1400                    |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N16S20P | 1600                    |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N18S20P | 1800                    |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N20S20P | 2000                    |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |
| SD103N22S20P | 2200                    |                                     |      |                      |              |                                                    |                                | 2000                           |                                  |             |                                                                                                                                    |

(1) 100% V<sub>RRM</sub> reapplied @ T<sub>J</sub> = T<sub>J</sub> max = 125°C.

(2) T<sub>J</sub> = 25°C.

(3) Cathode-to-stud. For anode-to-stud change "N" to "R" (eg. SD103R02S20P).

(4) For devices up to 1200 V, outline number is R8B/R10B; for devices with V<sub>RRM</sub> ≥ 1400 V, outline number is R9B/R11B.

(5) For reverse polarity, anode to stud, insert "R" before digit designating voltage code (R18CFR20B).

(6) For case outline drawing see page 150.

(13) U.S. standard.