

# SKN 60F



Stud diode

## Fast Recovery Rectifier Diode

SKN 60F  
SKR 60F

### Features

- Small recovered charge
- Soft recovery
- Up to 1500 V reverse voltage
- Hermetic metal case with glass insulator
- Threaded studs ISO M6 and M8
- SKN: anode to stud; SKR: cathode to stud

### Typical Applications

- Inverse diodes for power transistors, GTO thyristors, asymmetric thyristors
- SMPS, inverters, choppers
- A.C. motor control, uninterruptible power supplies (UPS)

| $V_{RSM}$<br>V | $V_{RRM}$<br>V | $I_{FRMS} = 120$ A (maximum value for continuous operation)<br>$I_{FAV} = 60$ A (sin. 180; 1000 Hz; $T_c = 100$ °C) |           |  |
|----------------|----------------|---|-----------|--|
| 1200           | 1200           | SKN 60F12   | SKR 60F12 |  |
| 1400           | 1400           | SKN 60F14   | SKR 60F14 |  |
| 1500           | 1500           | SKN 60F15   | SKR 60F15 |  |
| 1700           | 1700           | SKN 60F17   | SKR 60F17 |  |

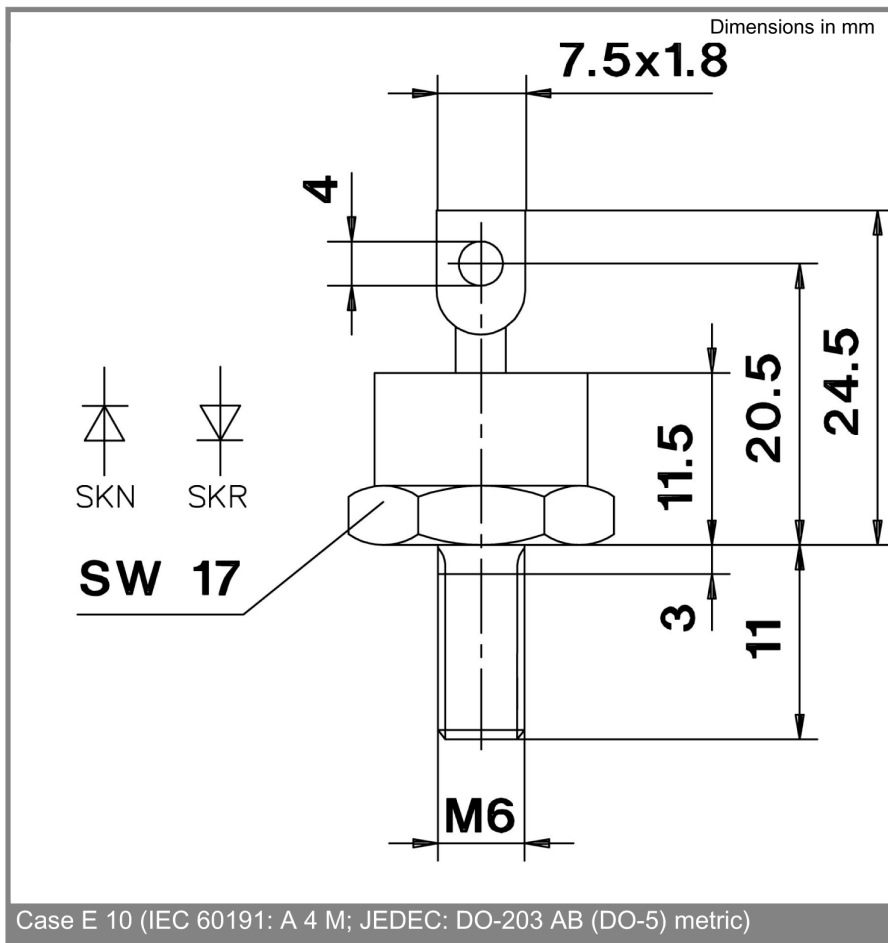
| Symbol        | Conditions                            | Values         | Units            |
|---------------|---------------------------------------|----------------|------------------|
| $I_{FAV}$     | sin. 180; $T_c = 85$ (100) °C         | 75 (60)        | A                |
| $I_{FAV}$     | K3; $T_a = 45$ °C; sin. 180; 1000 Hz  | 21,5           | A                |
| $I_{FSM}$     | $T_{vj} = 25$ °C; 10 ms               | 1400           | A                |
|               | $T_{vj} = 150$ °C; 10 ms              | 1200           | A                |
| $i^2t$        | $T_{vj} = 25$ °C; 8,3 ... 10 ms       | 9800           | A <sup>2</sup> s |
|               | $T_{vj} = 150$ °C; 8,3 ... 10 ms      | 7200           | A <sup>2</sup> s |
| $V_F$         | $T_{vj} = 25$ °C; $I_F = 150$ A       | max. 1,75      | V                |
| $V_{(TO)}$    | $T_{vj} = 150$ °C                     | max. 1         | V                |
| $r_T$         | $T_{vj} = 150$ °C                     | max. 4         | mΩ               |
| $I_{RD}$      | $T_{vj} = 25$ °C; $V_{RD} = V_{RRM}$  | max. 0,4       | mA               |
| $I_{RD}$      | $T_{vj} = 150$ °C; $V_{RD} = V_{RRM}$ | max. 60        | mA               |
| $Q_{rr}$      | $T_{vj} = 150$ °C; $I_F = 100$ A,     | 75             | μC               |
| $I_{RM}$      | $-di/dt = 100$ A/μs, $V_R = 30$ V     | 70             | A                |
| $t_{rr}$      |                                       | 2100           | ns               |
| $E_{rr}$      |                                       | -              | mJ               |
| $R_{th(j-c)}$ |                                       | 0,5            | K/W              |
| $R_{th(c-s)}$ |                                       | 0,25           | K/W              |
| $T_{vj}$      |                                       | - 40 ... + 150 | °C               |
| $T_{stg}$     |                                       | - 55 ... + 150 | °C               |
| $V_{isol}$    |                                       | -              | V~               |
| $M_s$         | to heatsink                           | 2,5            | Nm               |
| $a$           |                                       | 5 * 9,81       | m/s <sup>2</sup> |
| $m$           | approx.                               | 20             | g                |
| Case          |                                       | E 10           |                  |



SKN



SKR



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