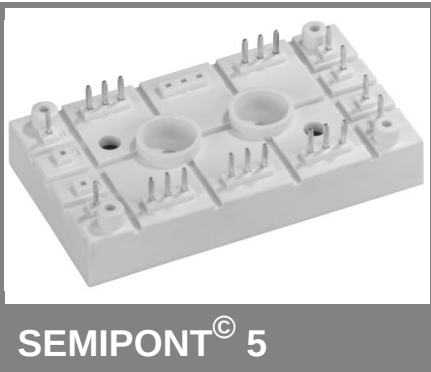




Bridge Rectifiers

SKD 145

Target Data

Features

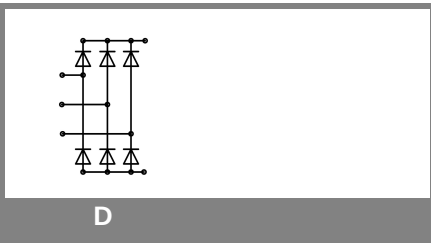
- Compact design
- SKiiP technology: thermal pressure contact, no base plate and no hard mould
- Two screws mounting
- Heat transfer and isolation through direct copper board (low  $R_{th}$ )
- Low resistance in steady-state and high reliability
- High surge currents
- Up to 1800 V
- UL recognized, file no. E 63 532

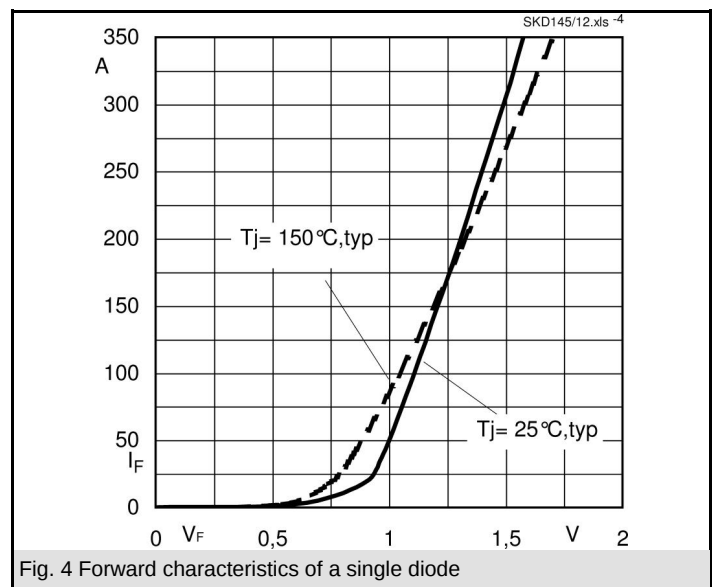
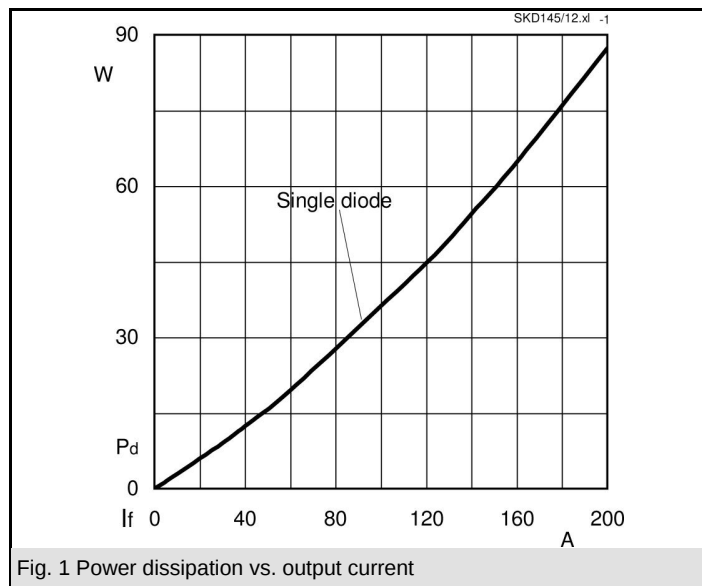
Typical Applications

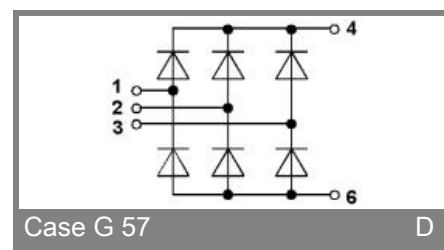
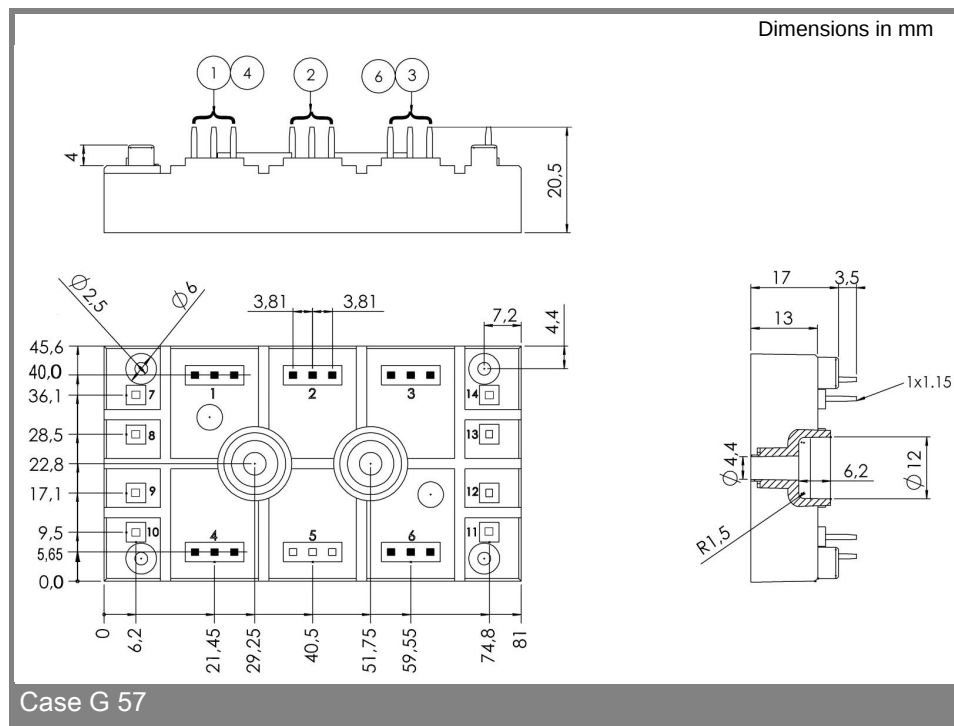
- Three phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers

| $V_{RSM}$<br>V | $V_{RRM}, V_{DRM}$<br>V | $I_D = 140$ A (full conduction)<br>( $T_s = 85$ °C) |
|----------------|-------------------------|-----------------------------------------------------|
| 1200           | 1200                    | SKD 145/12                                          |
| 1600           | 1600                    | SKD 145/16                                          |
| 1800           | 1800                    | SKD 145/18                                          |

| Symbol                                   | Conditions                                                                                                                              | Values                                  | Units                    |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------|
| $I_D$                                    | $T_s = 85$ °C                                                                                                                           | 140                                     | A                        |
| $I_{FSM}$                                | $T_{vj} = 25$ °C; 10 ms<br>$T_{vj} = 125$ °C; 10 ms                                                                                     | 1800<br>1700                            | A<br>A                   |
| $i^2t$                                   | $T_{vj} = 25$ °C; 8,3 ... 10 ms<br>$T_{vj} = 125$ °C; 8,3 ... 10 ms                                                                     | 16200<br>14450                          | A²s<br>A²s               |
| $V_F$<br>$V_{(TO)}$<br>$r_T$<br>$I_{RD}$ | $T_{vj} = 125$ °C; $I_F = 150$ A<br>$T_{vj} = 125$ °C<br>$T_{vj} = 125$ °C<br>$T_{vj} = 25$ °C; $V_{DD} = V_{DRM}$ ; $V_{RD} = V_{RRM}$ | max. 1,3<br>max. 0,8<br>max. 4          | V<br>V<br>mΩ<br>mA<br>mA |
| $R_{thjh}$                               | per diode                                                                                                                               | 0,8                                     | K/W<br>K/W               |
| $T_{solder}$<br>$T_{vj}$<br>$T_{stg}$    | Terminals, max 10s                                                                                                                      | 260<br>- 40 ... + 150<br>- 40 ... + 125 | °C<br>°C<br>°C           |
| $V_{isol}$<br>$M_s$<br>$M_t$<br>$m$      | a. c. 50 Hz; r.m.s.; 1 s / 1 min.<br>to heatsink; SI units                                                                              | 3600 ( 3000 )<br>2,5<br>75              | V<br>Nm<br>Nm<br>g       |
| Case                                     |                                                                                                                                         | G 57                                    |                          |







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