

**RECTIFIER DIODES MODULE**

**ADD805**

Repetitive voltage up to **2200 V**  
Mean forward current **819 A**  
Surge current **19 kA**

**FINAL SPECIFICATION**

Apr. 17 - Issue: 1

| Symbol               | Characteristic                      | Conditions   | T <sub>j</sub> [°C] | Value                  | Unit             |
|----------------------|-------------------------------------|--|---------------------|------------------------|------------------|
| <b>BLOCKING</b>      |                                     |  |                     |                        |                  |
| V <sub>RRM</sub>     | Repetitive peak reverse voltage     |  | 150                 | 2200                   | V                |
| V <sub>RSM</sub>     | Non-repetitive peak reverse voltage |  | 150                 | 2300                   | V                |
| I <sub>RRM</sub>     | Repetitive peak reverse current     | V=VRRM   | 150                 | 50                     | mA               |
| <b>CONDUCTING</b>    |                                     |  |                     |                        |                  |
| I <sub>F(AV)</sub>   | Mean forward current                | 180° sin, 50 Hz, T <sub>c</sub> =100°C, single side cooled |                     | 669                    | A                |
| I <sub>F(AV)</sub>   | Mean forward current                | 180° sin, 50 Hz, T <sub>c</sub> =85°C, single side cooled  |                     | 819                    | A                |
| I <sub>FSM</sub>     | Surge forward current               | Sine wave, 10 ms without reverse voltage                   | 150                 | 19                     | kA               |
| I <sup>2</sup> t     | I <sup>2</sup> t                    |  |                     | 1805 x 10 <sup>3</sup> | A <sup>2</sup> s |
| V <sub>FM</sub>      | Forward voltage                     | Forward current = 1978 A                                   | 25                  | 1,40                   | V                |
| V <sub>F(TO)</sub>   | Threshold voltage                   |  | 150                 | 0,77                   | V                |
| r <sub>F</sub>       | Forward slope resistance            |  | 150                 | 0,180                  | mohm             |
| <b>SWITCHING</b>     |                                     |  |                     |                        |                  |
| t <sub>rr</sub>      | Reverse recovery time               |  | 150                 |                        | μs               |
| Q <sub>rr</sub>      | Reverse recovery charge             |  |                     | 1200                   | μC               |
| I <sub>rr</sub>      | Peak reverse recovery current       |  |                     |                        | A                |
| <b>MOUNTING</b>      |                                     |  |                     |                        |                  |
| R <sub>th(j-c)</sub> | Thermal impedance, DC               | Junction to case, per element                              |                     | 70,0                   | °C/kW            |
| R <sub>th(c-h)</sub> | Thermal impedance                   | Case to heatsink, per element                              |                     | 20,0                   | °C/kW            |
| T <sub>j</sub>       | Operating junction temperature      |  |                     | -30 / 150              | °C               |
| V <sub>ins</sub>     | RMS insulation voltage              | 50Hz, 1min, circuit to base,all terminal shorted           | 25                  | 2500                   | V                |
| T                    | Mounting torque                     | Case to heatsink   |                     | 4 to 6                 | Nm               |
|                      |                                     | Busbars to terminals                                       |                     | 9 to 11                | Nm               |
|                      | Mass                                |  |                     | 1500                   | g                |

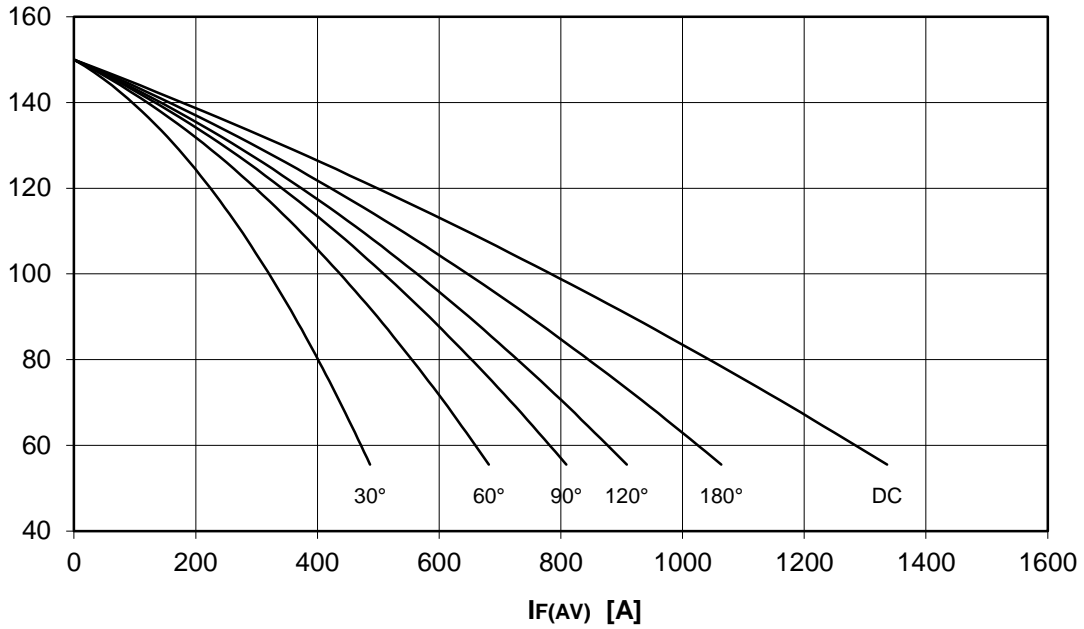
**ORDERING INFORMATION : ADD805 S 22**

standard specification   VRRM/100

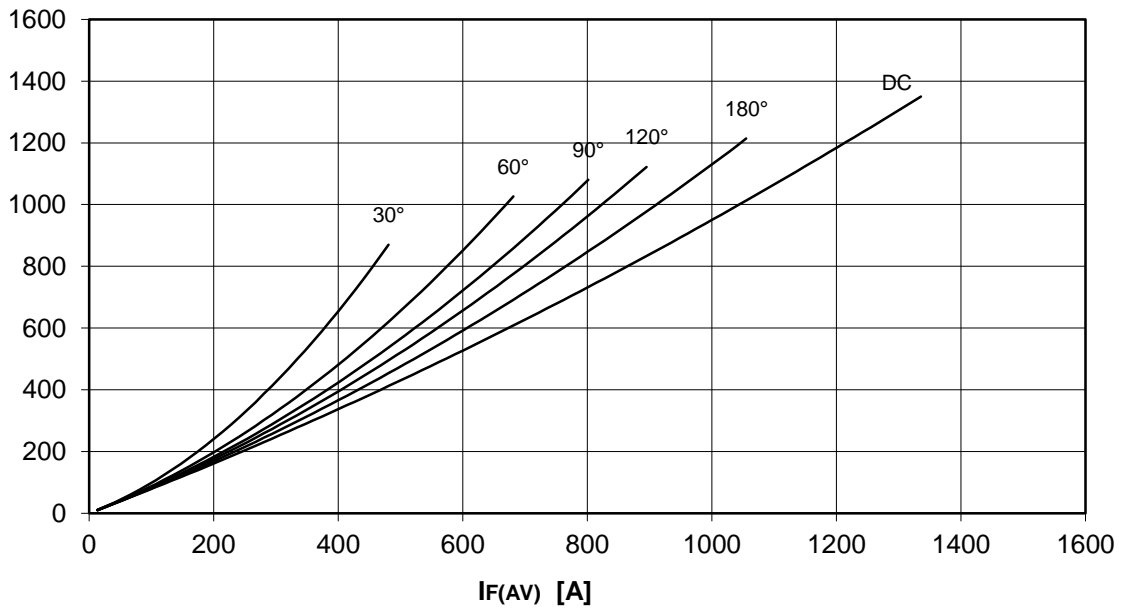
**DISSIPATION CHARACTERISTICS**

SQUARE WAVE

**T<sub>c</sub> [°C]**

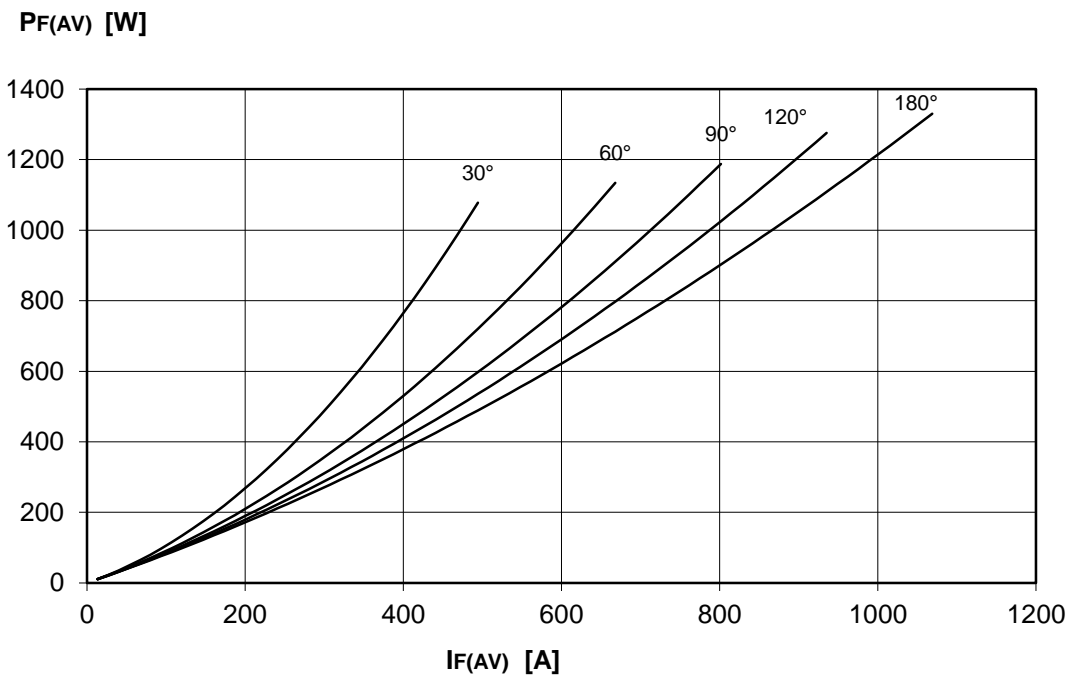
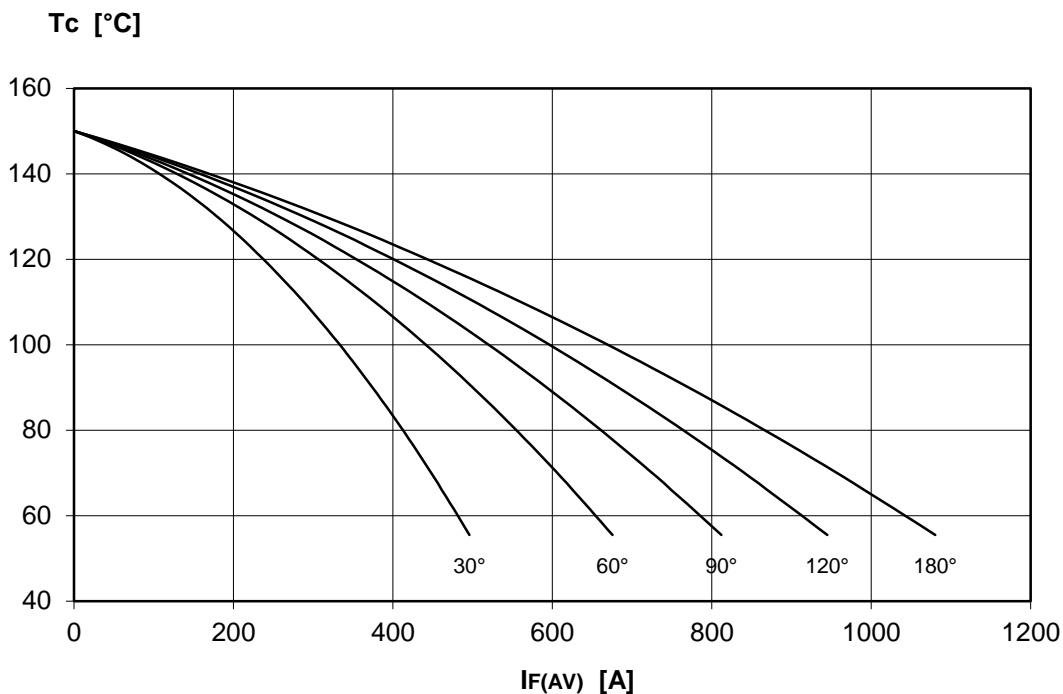


**P<sub>F(AV)</sub> [W]**

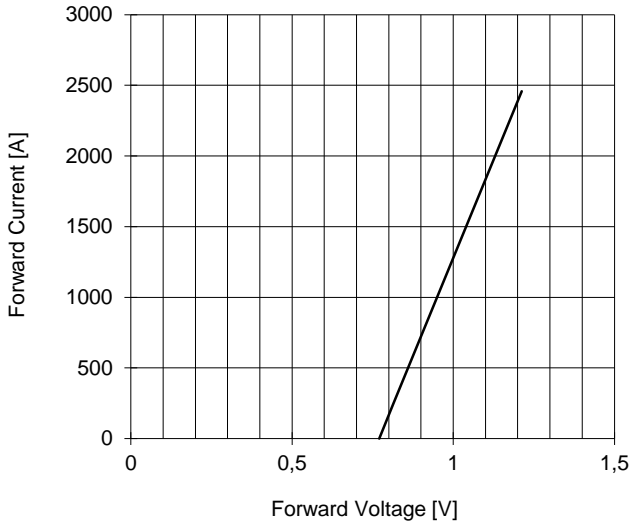


**DISSIPATION CHARACTERISTICS**

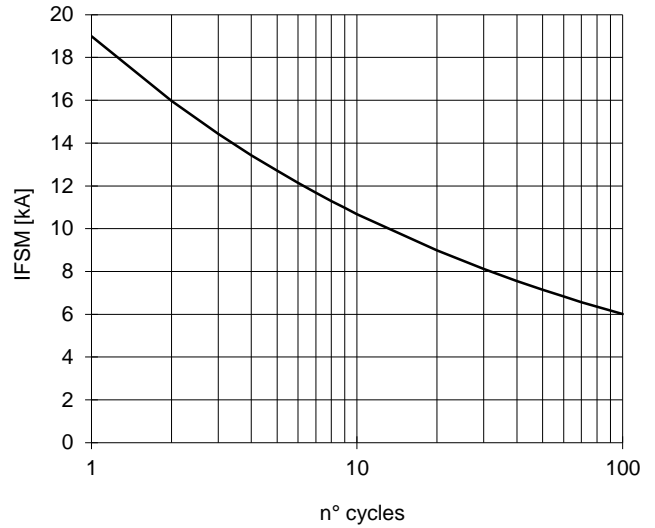
SINE WAVE



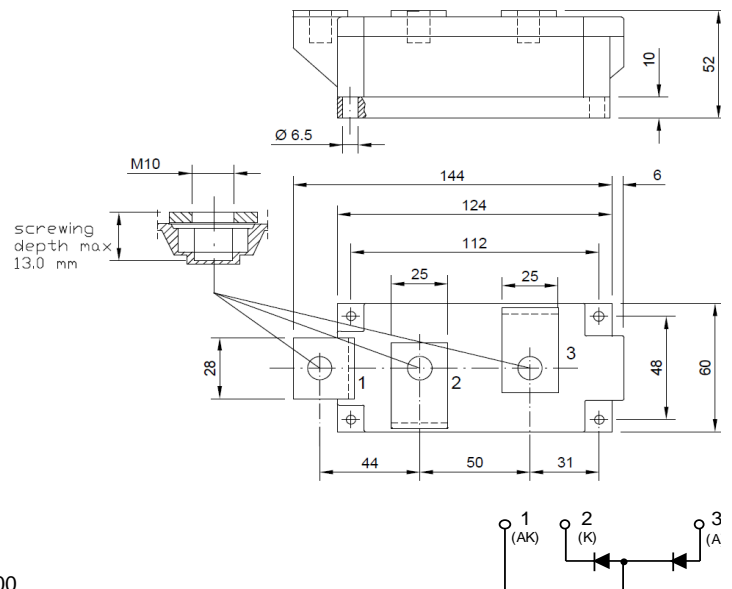
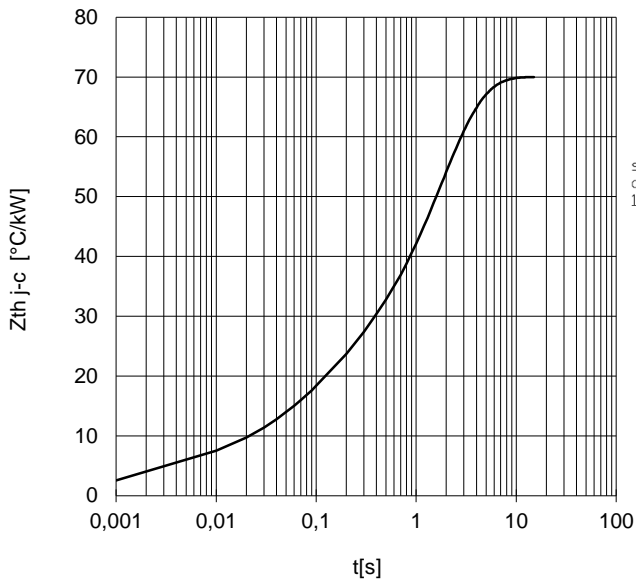
FORWARD CHARACTERISTIC  
T<sub>j</sub> = 150 °C



SURGE CHARACTERISTIC  
T<sub>j</sub> = 150 °C



TRANSIENT THERMAL IMPEDANCE



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All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink, surfaces with flatness < .03 mm and roughness < 2  $\mu$ m.  
 In the interest of product improvement POSEICO SpA reserves the right to change any data given in this data sheet at any time without previous notice.  
 If not stated otherwise the maximum value of ratings (symbols over shaded background) and characteristics is reported.

