## SEMiX 341D ...



### **Bridge Rectifier Module** (uncontrolled)

#### SEMiX 341D

Target Data

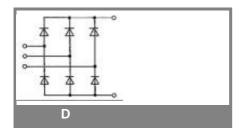
#### **Features**

- terminal height of 17mm
- chip solder on direct copper • bonded Al<sub>2</sub>O<sub>3</sub> ceramic heat transfer through Al<sub>2</sub>O<sub>3</sub>
- ceramic isolated baseplate

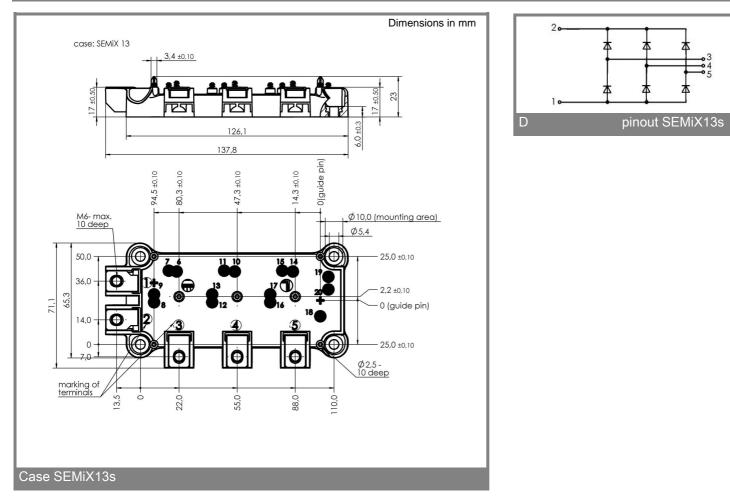
### **Typical Applications**

- Input Bridge Rectifier for
- AC/DC motor control
- power supply

| V <sub>RSM</sub> V <sub>RRM</sub> , V <sub>DRI</sub><br>V V<br>1700 1600 |                                   | V <sub>RRM</sub> , V <sub>DRM</sub>          | $I_D = 340 \text{ A} \text{ (full conduction)}$<br>( $T_c = 85 \text{ °C}$ )<br>SEMiX 341D16s |                    |            |
|--|-----------------------------------|--|---|--------------------|------------|
|  |                                   | V  |   |                    |            |
|  |                                   | 1600   |   |                    |            |
| Symbol   | Con                               | ditions                                      |   | Values             | Units      |
| I <sub>D</sub>   | T <sub>c</sub> = 8                | 85 °C  |   | 340                | А          |
| 5  | T <sub>C</sub> =                  | 100 °C                                       |   | 290                |            |
| I <sub>FSM</sub>   | T <sub>vi</sub> =                 | 25 °C; 10 ms                                 |   | 2500               | A          |
|  | T <sub>vi</sub> =                 | 130 °C; 10 ms                                |   | 2000               | А          |
| i²t  | T <sub>vi</sub> =                 | 25 °C; 8,3 10 ms                             |   | 31200              | A²s        |
|  | T <sub>vj</sub> =                 | 130 °C; 8,3 10 ms                            |   | 20000              | A²s        |
| V <sub>F</sub>   | T <sub>vi</sub> =                 | 25 °C; I <sub>F</sub> = 400 A                |   | max. 1,75          | V          |
| V <sub>(TO)</sub>  | (TO) T <sub>vi</sub> = 130 °C     |  |   | max. 0,9           | V          |
| r <sub>T</sub>   |                                   |  |   | max. 2,7           | mΩ         |
| I <sub>RD</sub>  | T <sub>vj</sub> =                 | 130 °C; V <sub>DD</sub> = V <sub>DRM</sub> ; | V <sub>RD</sub> = V <sub>RRM</sub>  | max. 4,5           | mA<br>mA   |
| R <sub>th(j-c)</sub>   | (j-c) per diode                   |  |   | 0,22               | K/W<br>K/W |
| R <sub>th(c-s)</sub>   | per module                        |  |   | 0,04<br>- 40 + 130 | к/W<br>°С  |
| T <sub>vj</sub><br>T <sub>stg</sub>                                      |                                   |  |   | - 40 + 130         | °C         |
| V <sub>isol</sub>  | a. c. 50 Hz; r.m.s.; 1 s / 1 min. |  |   | 4800 ( 4000 )      | V          |
| M <sub>s</sub>   | (min./max.)                       |  |   | 3/5                | Nm         |
| M <sub>t</sub>   | (min./max.)                       |  |   | 2,5/5              | Nm         |
| а  |                                   |  |   | 5 * 9,81           | m/s²       |
| m  |                                   |  |   | 300                | g          |
| Case   | SEM                               | X 13s  |   |                    |            |



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