

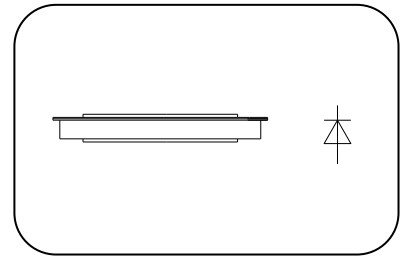
**Features**

- Optimized for high current rectifiers
- Very low threshold voltage and slop resistance
- Very low thermal resistance

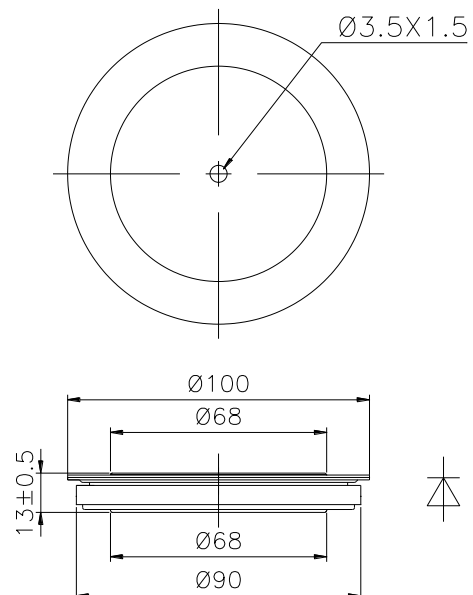
**Typical Applications**

- High current application For Welders up to 1000Hz
- Electrode plating

**$I_{F(AV)}$  16000 A**  
 **$V_{RRM}$  200~400 V**  
 **$I_{FSM}$  120 kA**  
 **$I^2t$  76000  $10^3A^2S$**



| SYMBOL        | CHARACTERISTIC                           | TEST CONDITIONS  | T <sub>j</sub> (°C) | VALUE |      |        | UNIT       |
|---------------|--|--|---------------------|-------|------|--------|------------|
|               |  |  |                     | Min   | Type | Max    |            |
| $I_{F(AV)}$   | Mean forward current                     | 180° half sine wave 50Hz<br>Double side cooled, T <sub>c</sub> =85°C | 175                 |       |      | 16000  | A          |
| $V_{RRM}$     | Repetitive peak reverse voltage          | tp=10ms  | 175                 | 200   |      | 400    | V          |
| $I_{RRM}$     | Repetitive peak current                  | at $V_{RRM}$   | 175                 |       |      | 80     | mA         |
| $I_{FSM}$     | Surge forward current                    | 10ms half sine wave  | 175                 |       |      | 120    | kA         |
| $I^2t$        | I <sup>2</sup> T for fusing coordination | $V_R=0V_{RRM}$   |                     |       |      | 76000  | $10^3A^2s$ |
| $V_{FO}$      | Threshold voltage                        | $I_{FM}=12000-24000A$  | 175                 |       |      | 0.75   | V          |
| $r_F$         | Forward slop resistance                  |  |                     |       |      | 0.017  | mΩ         |
| $V_{FM}$      | Max Peak on-state voltage                | $I_{FM}=6000A, F=80kN$   | 25                  |       |      | 1.00   | V          |
| $Q_{rr}$      | Recovery charge                          | $I_{FM}=1000A, tp=2000\mu s, di/dt=-20A/\mu s, V_R=50V$              | 175                 |       |      | 650    | μC         |
| $R_{th(j-c)}$ | Thermal resistance<br>Junction to case   | DC double side cooled<br>Clamping force 80.0kN                       |                     |       |      | 0.003  | °C /W      |
| $R_{th(c-h)}$ | Thermal resistance<br>case to heat sink  |  |                     |       |      | 0.0015 |            |
| $F_m$         | Mounting force                           |  |                     | 70    | 80   | 90     | kN         |
| $T_{stg}$     | Stored temperature                       |  |                     | -40   |      | 175    | °C         |
| $W_t$         | Weight                                   |  |                     |       | 540  |        | g          |
| Outline       | P60                                      |  |                     |       |      |        |            |



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