

# PST Standard Rectifier-----D2601N-DS-V9

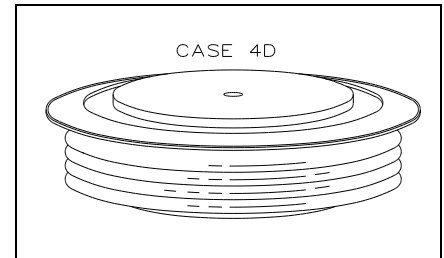
## GENERAL PURPOSE HIGH POWER STANDARD RECTIFIER

### Features:

- . All Diffused Structure
- . High Surge rating
- . Soft Reverse Recovery
- . Rugged Ceramic Hermetic Package
- . Pressure Assembled Device

### Typical Applications:

- . Rectifier for Drives Applications
- . Medium voltage converters
- . Pulsed power applications
- . Crowbar Applications



## ELECTRICAL CHARACTERISTICS AND RATINGS

### Reverse Blocking

|               |               |
|---------------|---------------|
| $V_{RRM}$ (1) | $V_{RSM}$ (1) |
| 9000          | 9100          |

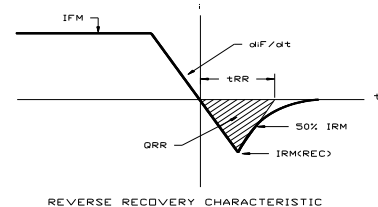
$V_{RRM}$  = Repetitive peak reverse voltage

$V_{RSM}$  = Non repetitive peak reverse voltage (2)

|                                 |           |                     |
|---------------------------------|-----------|---------------------|
| Repetitive peak reverse leakage | $I_{RRM}$ | 20 mA<br>100 mA (3) |
|---------------------------------|-----------|---------------------|

Notes:

All ratings are specified for  $T_j=25^\circ\text{C}$  unless otherwise stated.



### Conducting - on state

| Parameter                                     | Symbol        | Min | Max.               | Typ | Units                 | Conditions                                                                                   |
|-----------------------------------------------|---------------|-----|--------------------|-----|-----------------------|----------------------------------------------------------------------------------------------|
| Average value of on-state current             | $I_{F(AV)}$   |     | 2200               |     | A                     | Sinewave, 180° conduction, $T_c=100^\circ\text{C}$                                           |
| RMS value of on-state current                 | $I_{FRMS}$    |     | 3460               |     | A                     | Nominal value                                                                                |
| Peak one cycle surge (non repetitive) current | $I_{FSM}$     |     | 52000              |     | A                     | $T_j=25^\circ\text{C}$ , $V_R=0,8V_{RRM}$ , $t_p=10\text{ms}$                                |
| I square t                                    | $I^2t$        |     | $13.5 \times 10^3$ |     | $\text{kA}^2\text{s}$ | 10 msec                                                                                      |
| Peak on-state voltage                         | $V_{FM}$      |     | 2.6                |     | V                     | $I_{FM} = 4000 \text{ A}$ ; $T_j = 160^\circ\text{C}$                                        |
| Reverse Recovery Current (4)                  | $I_{RM(REC)}$ |     | 250                |     | A                     | $I_{FM} = 1000 \text{ A}$ ; $dI_F/dt = 10 \text{ A}/\mu\text{s}$ , $T_j = 160^\circ\text{C}$ |
| Reverse Recovery Charge (4)                   | $Q_{rr}$      |     | -                  |     | $\mu\text{C}$         |                                                                                              |
| Reverse Recovery Time (4)                     | $t_{RR}$      |     | -                  |     | $\mu\text{s}$         |                                                                                              |

\* For guaranteed maximum values, contact factory

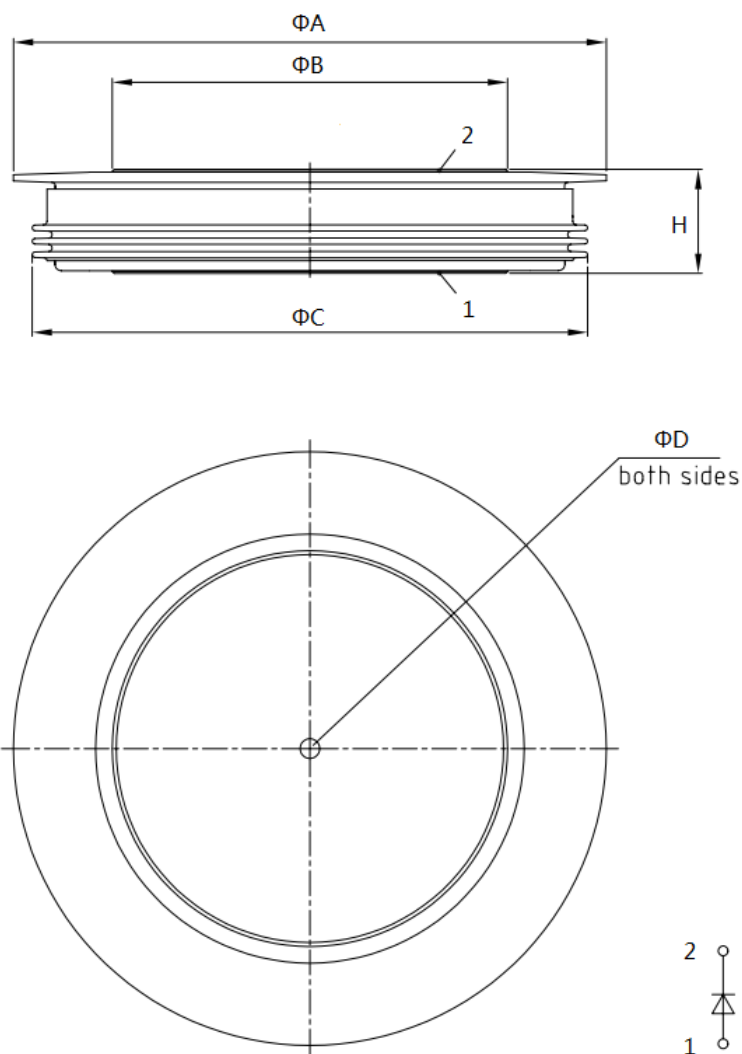
## THERMAL AND MECHANICAL CHARACTERISTICS

| Parameter                             | Symbol            | Min. | Max. | Typ. | Units            | Conditions |
|---------------------------------------|-------------------|------|------|------|------------------|------------|
| Operating temperature                 | $T_j$             | -40  | +160 |      | $^\circ\text{C}$ |            |
| Storage temperature                   | $T_{stg}$         | -40  | +160 |      | $^\circ\text{C}$ |            |
| Thermal resistance - junction to case | $R_{\theta(j-c)}$ |      | 8.55 |      | K/kW             |            |
| Thermal resistance - case to sink     | $R_{\theta(c-s)}$ |      | 2.5  |      | K/kW             |            |
| Mounting force                        | P                 | 36   | 52   |      | kN               |            |
| Weight                                | W                 |      |      |      | g                |            |

\* Mounting surfaces smooth, flat and greased

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## CASE OUTLINE AND DIMENSIONS



| Sym | A   | B  | C   | D     | H    |
|-----|-----|----|-----|-------|------|
| mm  | 118 | 84 | 110 | 3.5×3 | 26±1 |