Infineon Technologies Bipolar

Product Brief

540 A/8 kV Light-triggered Thyristor

For static var compensation (SVC) and medium-voltage drives

The 8 kV light-triggered thyristor disc is well suited to medium-voltage drives, power supplies and for static var compensation systems. The ceramic disc facilitates an easy way of triggering by using optical fibers to avoid insulation problems between the load and trigger units. This disc increases reliability by reducing electronic components with a high potential. They use the internal protection functions such as Break over Diode (BoD) and critical rise rate of forward off state voltage rate (dv/dt) protection. This is ensured by safe internal triggering of the thyristor. Due to the outstanding design it is also possible to use the protection functions for repetitive operation. This feature allows continuous operation even in case of system failure. High technology process ensure good dynamic characteristics of the device.

Key benefits

- Easy and fully isolated way of triggering by using optical fiber
- Internal protection functions (BoD and dv/dt) to reduce peripheral electronics

Key features

- Ratings
  - V_{BO} = 7500 V
  - V_{RRM} = 8000 V
  - I_{TAVM} = 540 A
- Housing dimensions
  - Diameter = 76 mm
  - Height = 35 mm

Applications

- Static var compensation (SVC)
- Medium-voltage drives

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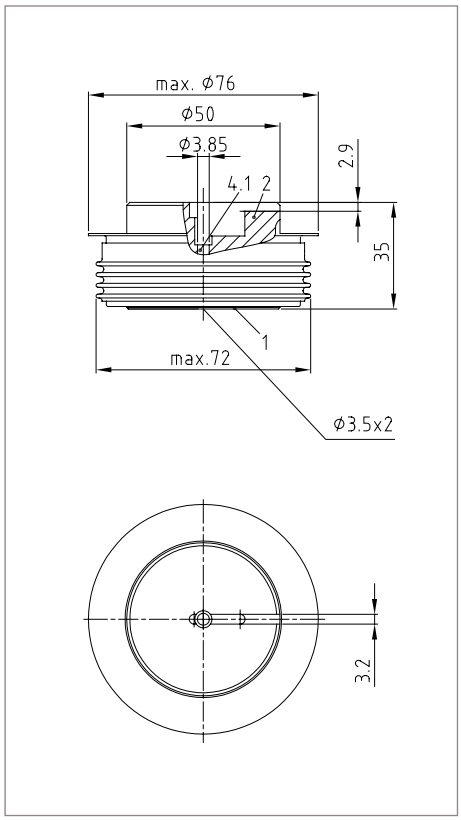
Outline drawing



Electrical parameters

T533N80TOH	
V_{BO}	7500 V
V_{RRM}	8000 V
I_{TSM}	10.5 kA
$\int i^2dt$	$551 \times 10^3 A^2s$
V_T/I_T	2.75 V / 1000 A
I_{TAVM}	540 A
$V_{(T0)}$	1.26 V
r_T	1.47 mΩ
$(di/dt)_{cr}$	300 A/µs
t_q	800 µs
R_{thjc}	20 K/kW
T_{vjmax}	120 °C

Sales Information

Part number	Status	Order number
T533N80TOH	in production	SP000905366

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