



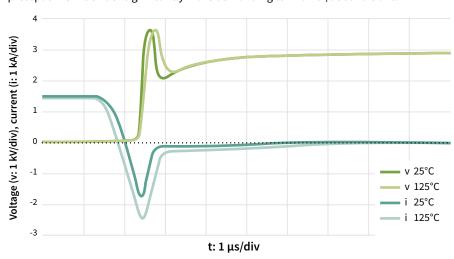
Product Brief

Soft recovery freewheeling diodes for IGCTs & presspack IGBTs (PPI)

4500 V / 6500 V diode disc series

Our soft recovery diode disc series consists of robust and powerful disc device types developed for the special requirements of medium-voltage IGCT inverter applications. All devices are designed for high surge current capability. For IGCT inverter applications in particular, they are optimized to achieve excellent soft recovery behavior even under the most demanding turn-off conditions. High-tech production processes deliver outstanding dynamic parameters for best-cost designs with extreme soft recovery behavior to avoid overvoltage at the IGCT device.

For some applications they are also suitable as clamping or freewheeling diodes for presspack IGBTs under significantly more demanding turn-off di/dt conditions.





Key benefits

- Extreme soft switching behavior and low on-state losses in one device
- > Low inductive connection to IGCT/ presspack IGBT possible

Key features

> Blocking voltage

 $V_{RRM} = 4500 \, V / 6500 \, V$

> Housing dimensions

Diameter = 75 mm ... 150 mm

Height = 26 mm

> designed for di/dt up to 5000 A/μs

Applications

- > Freewheeling or clamping diode in IGCT inverter drives e.g. rolling mills, ship drives and windmills
- > Freewheeling or clamping diode in presspack IGBT inverter drives e.g.
 HVDC, statcom and medium voltage drives





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Electrical parameters – outline dimensions

| Type designation | V _{RRM} [V] | I _{FAV} [A] | I _{FSM} [kA] | Diameter [mm] | Contact [mm] | Status | Ordering code |
|------------------|-------------------------|-------------------------|--------------------------|------------------|-----------------|---------------|---------------|
| D350SH45T | 4500 | 700 | 13.0 | 75 | 50.0 | in production | SP000993540 |
| D911SH45T | 4500 | 890 | 17.0 | 100 | 62.8 | in production | SP000091218 |
| D1031SH45T | 4500 | 1140 | 23.0 | 100 | 62.8 | in production | SP000096632 |
| D1301SH45T * | 4500 | 1350 | 28.0 | 120 | 86.0 | in production | SP000972196 |
| D1331SH45T | 4500 | 1350 | 28.0 | 120 | 86.0 | in production | SP000096629 |
| D1821SH45T * | 4500 | 1710 | 40.0 | 120 | 86.0 | in production | SP001185734 |
| D1961SH45T | 4500 | 1960 | 40.0 | 120 | 86.0 | in production | SP000258796 |
| D931SH65T | 6500 | 940 | 16.0 | 100 | 62.8 | in production | SP000264203 |
| D1131SH65T | 6500 | 1100 | 22.0 | 120 | 86.0 | in production | SP000091174 |
| D1951SH65T | 6500 | 2040 | 44.0 | 150 | 100.0 | in production | SP000940954 |

All types designed for -di/dt up to $1000\,\text{A}/\mu\text{s}$

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^{*} type designed for -di/dt up to 5000 A/μs