

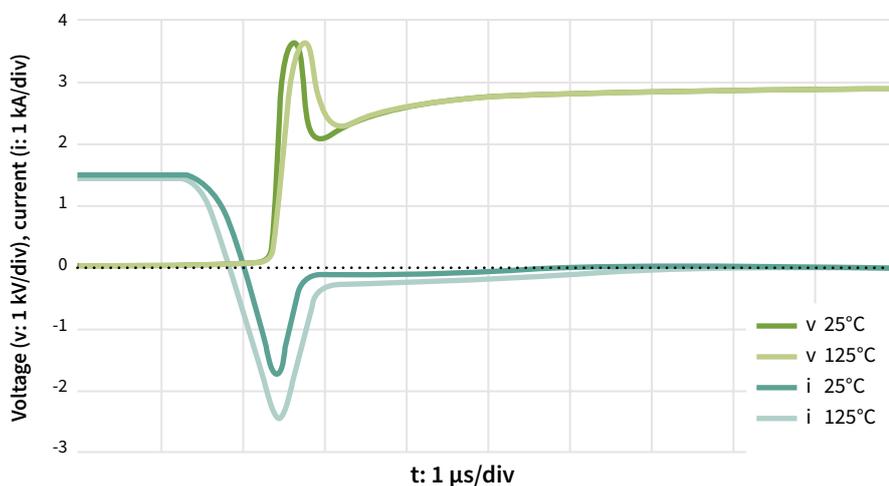
## Product Brief

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

## 4500V/6500V 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
  - $V_{RRM} = 4500V / 6500V$
- > 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 A/ $\mu$ s

\* type designed for  $-di/dt$  up to 5000 A/ $\mu$ s

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