

# Infineon's 4.5kV IHV Module

with IGBT3/EC3



## The 4.5kV

- Trench Plus Field Stop IGBT and Field Stop Diode Chips
- Filling the Gap between the Voltage Classes of 3.3kV and 6.5kV IGBT Modules
- Two different Housings:
  - IHV-B Housing with an increased Storage Temperature down to  $-55^{\circ}\text{C}$
  - 6.5kV Module Housing, offering 10.2kV Isolation Capability

### IHV-B Housing



### 6.5KV Housing

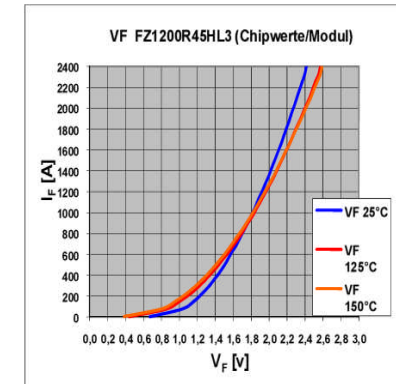
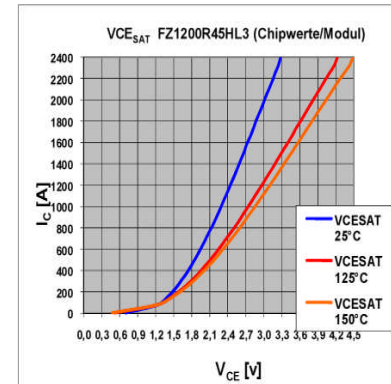


# Characteristic Data of IGBT and Diode @ 1200A



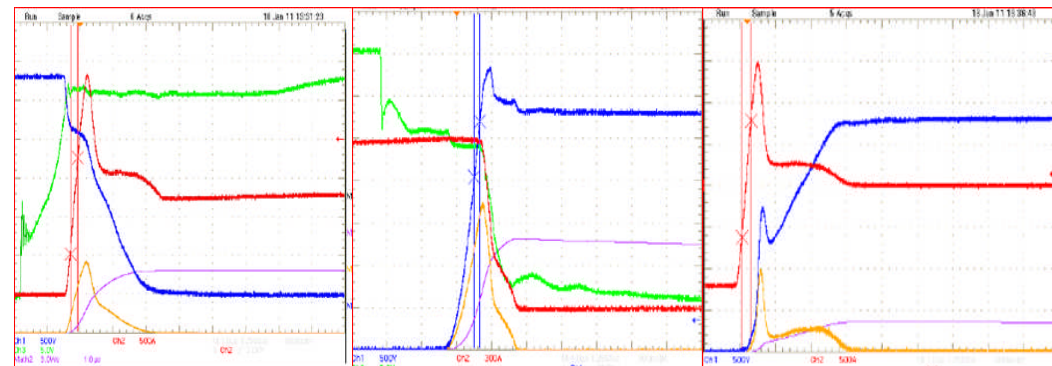
## ■ Static Data at 25 / 125°C

- $V_{cesat}$ : 2.8 / 3.3 V
- $V_f$ : 2.5 / 2.5 V



## ■ Dynamic Data at V<sub>ce</sub>=2.8kV

- E<sub>on</sub>: 4.6 / 6.0 J
- E<sub>off</sub>: 4.5 / 5.6 J
- E<sub>rec</sub>: 1.6 / 3.3 J



# Applications for 4.5KV IGBTmodules

## Medium Voltage Industrial Drives



## Traction Application



# IFX planned Product Portfolio for 4.5kVmodules

IC [A]	3.3kV Housing Single Switch		I <sub>c</sub> [A]	6.5kV Housing Single Switch	
	IH4B 130x140mm	IH7B 190x140mm		IH11 140x130mm	IH12 140x190mm
800/900	FZ800R45HL3	FZ900R45HL3	800	FZ800R45KL3_B5	
1200		FZ1200R45HL3	1200		FZ1200R45KL3_B5

I <sub>c</sub> [A]	3.3kV Housing Diodes Chopper		I <sub>c</sub> [A]	6.5kV Housing Diodes Chopper	
	IH4B 140x130mm	IH7B 140x190mm		IH11 140x130mm	IH12 140x190mm
800	DD800S45HL3		800	DD800S45KL3_B5	
			1200	DD1200S45KL3_B5	



# ENERGY EFFICIENCY MOBILITY SECURITY

Innovative semiconductor solutions for energy efficiency, mobility and security.

