

























































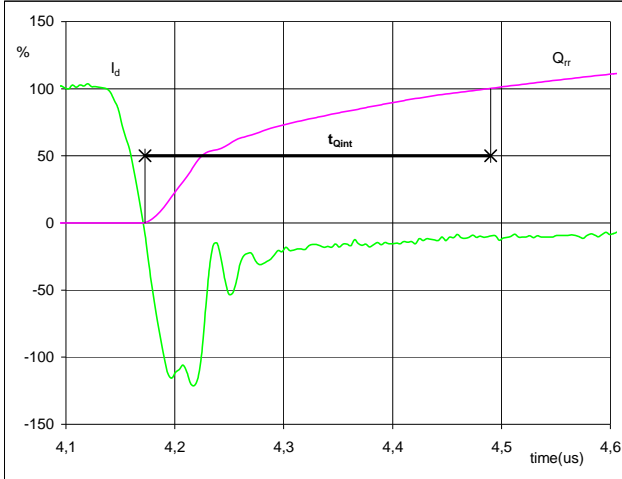




## Switching Definitions neutral point IGBT

Figure 9 half bridge FWD

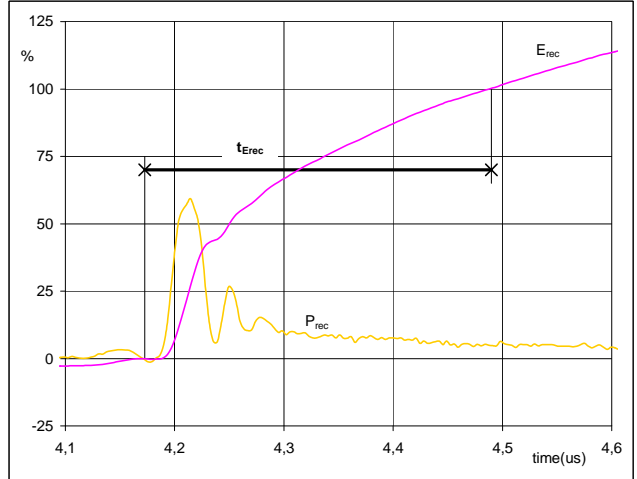
Turn-on Switching Waveforms & definition of  $t_{Qrr}$   
 ( $t_{Qrr}$ = integrating time for  $Q_{rr}$ )



$I_d$  (100%) = 50 A  
 $Q_{rr}$  (100%) = 6,56  $\mu$ C  
 $t_{Qint}$  = 0,09  $\mu$ s

Figure 10 half bridge FWD

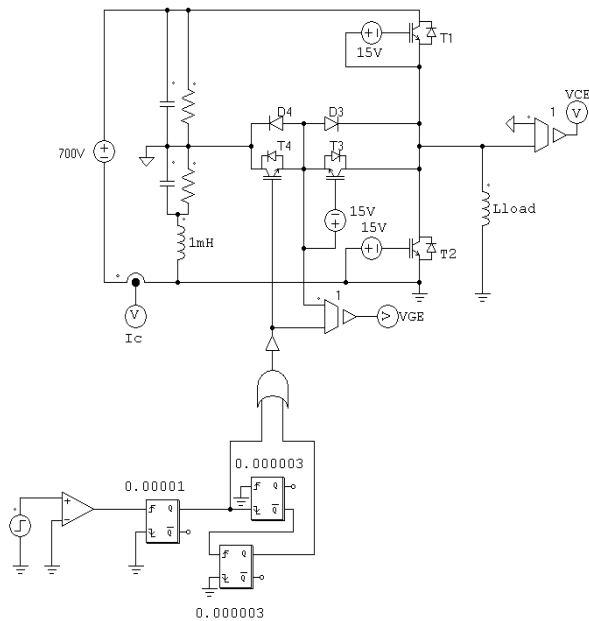
Turn-on Switching Waveforms & definition of  $t_{Erec}$   
 ( $t_{Erec}$ = integrating time for  $E_{rec}$ )



$P_{rec}$  (100%) = 34,87 kW  
 $E_{rec}$  (100%) = 1,72 mJ  
 $t_{Erec}$  = 0,09  $\mu$ s

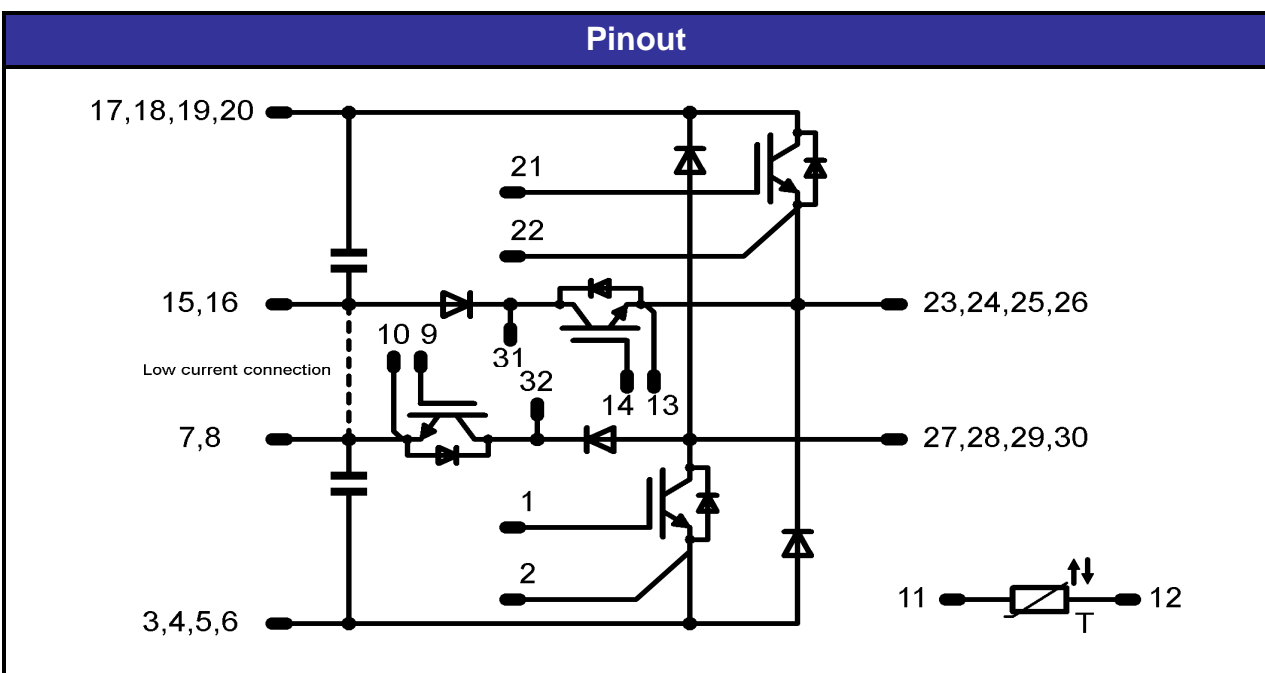
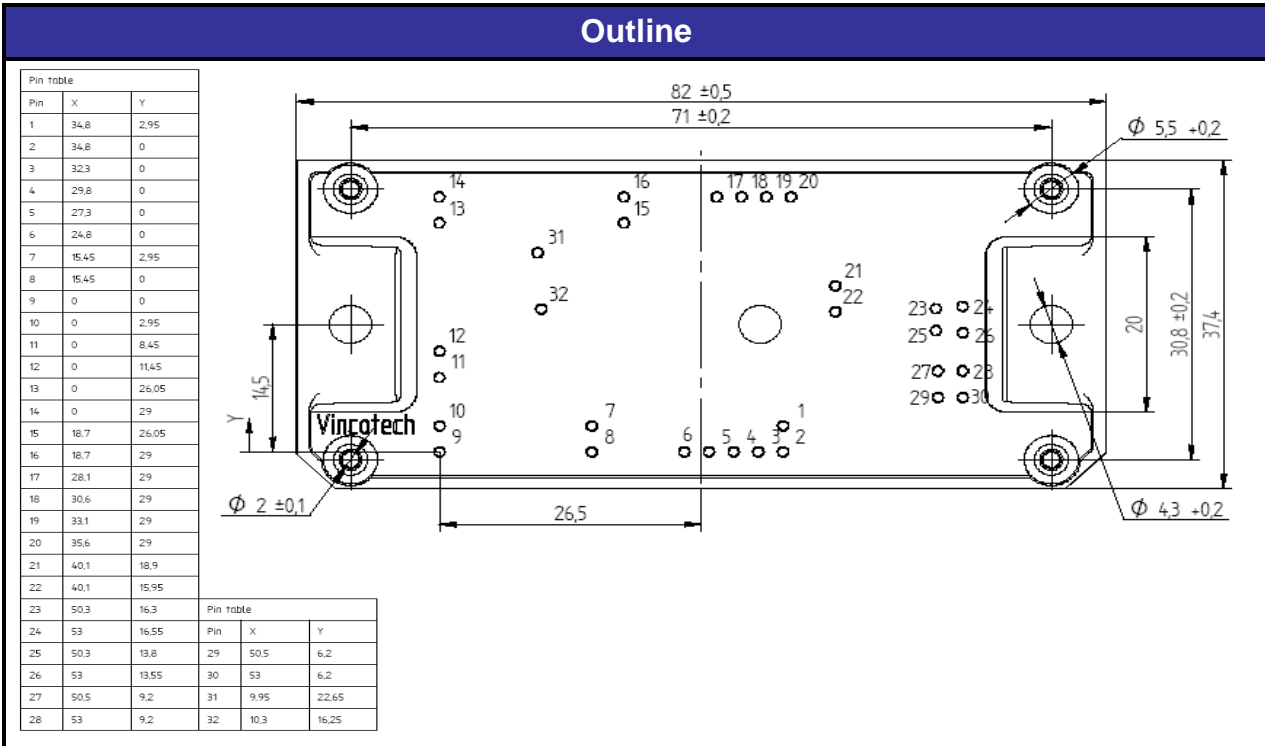
## neutral point IGBT switching measurement circuit

Figure 11



**Ordering Code and Marking - Outline - Pinout**

Ordering Code & Marking			
Version	Ordering Code	in DataMatrix as	in packaging barcode as
without thermal paste 12mm housing	10-FY12NMA080SH-M427F	M427F	M427F
without thermal paste 12mm housing with pressfit pin	10-PY12NMA080SH-M427FY	M427FY	M427FY



**PRODUCT STATUS DEFINITIONS**

<b>Datasheet Status</b>	<b>Product Status</b>	<b>Definition</b>
Target	Formative or In Design	This datasheet contains the design specifications for product development. Specifications may change in any manner without notice. The data contained is exclusively intended for technically trained staff.
Preliminary	First Production	This datasheet contains preliminary data, and supplementary data may be published at a later date. Vincotech reserves the right to make changes at any time without notice in order to improve design. The data contained is exclusively intended for technically trained staff.
Final	Full Production	This datasheet contains final specifications. Vincotech reserves the right to make changes at any time without notice in order to improve design. The data contained is exclusively intended for technically trained staff.

**DISCLAIMER**

The information given in this datasheet describes the type of component and does not represent assured characteristics. For tested values please contact Vincotech. Vincotech reserves the right to make changes without further notice to any products herein to improve reliability, function or design. Vincotech does not assume any liability arising out of the application or use of any product or circuit described herein; neither does it convey any license under its patent rights, nor the rights of others.

**LIFE SUPPORT POLICY**

Vincotech products are not authorised for use as critical components in life support devices or systems without the express written approval of Vincotech.

As used herein:

1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, or (c) whose failure to perform when properly used in accordance with instructions for use provided in labelling can be reasonably expected to result in significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.