

on -mi

FFSB1065B

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit	
V_{RRM}	Peak Repetitive Reverse Voltage	650	V	
E_{AS}	Single Pulse Avalanche Energy (Note 1)	49	mJ	
I_F	Continuous Rectified Forward Current @ $T_C < 25^\circ\text{C}$	27	A	
	Continuous Rectified Forward Current @ $T_C < 146^\circ\text{C}$	10		
$I_{F, Max}$	Non-Repetitive Peak Forward Surge Current	$T_C = 25^\circ\text{C}, 10 \mu\text{s}$	650	A
		$T_C = 150^\circ\text{C}, 10 \mu\text{s}$	570	A
$I_{F, SM}$	Non-Repetitive Forward Surge Current $T_C = 25^\circ\text{C}$	Half-Sine Pulse, $t_p = 8.3 \text{ ms}$	45	A
P_{tot}	Power Dissipation	$T_C = 25^\circ\text{C}$	79	W
		$T_C = 150^\circ\text{C}$	13	W
T_J, T_{STG}	Operating and Storage Temperature Range	-55 to +175	$^\circ\text{C}$	

FFSB1065B

TEST CIRCUIT AND WAVEFORMS

$L = 0.5 \text{ mH}$
 $R < 0.1 \ \Omega$
 $V_{DD} = 50 \text{ V}$
 $E_{AVL} = 1/2LI^2 [V_{R(AVL)} / (V_{R(AVL)} - V_{DD})]$
 $Q1 = \text{IGBT} (BV_{CES} > \text{DUT } V_{R(AVL)})$

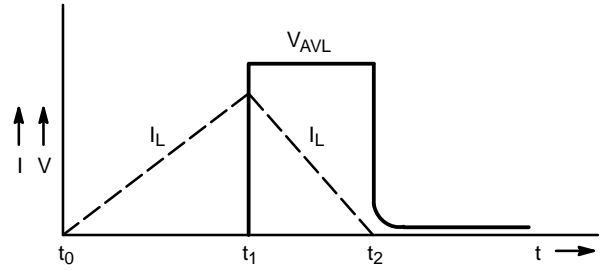
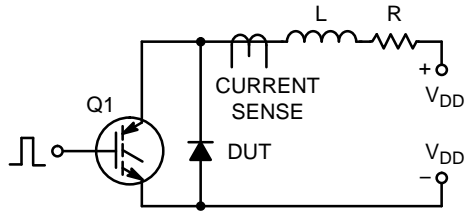
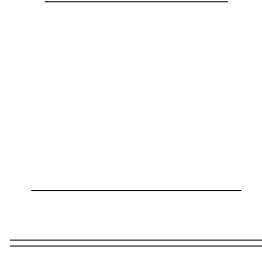
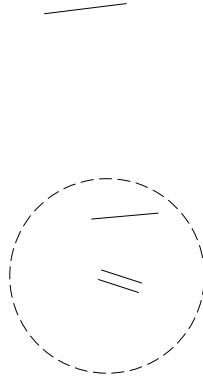


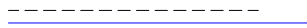
Figure 9. Unclamped Inductive Switching Test Circuit & Waveform

D²PAK2 (TO-263-2L)
CASE 418BK
ISSUE O

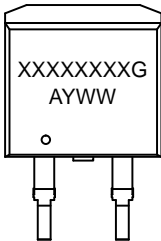
DATE 02 AUG 2018



DET/



**GENERIC
MARKING DIAGRAM***



- XXX = Specific Device Code
- A = Assembly Location
- Y = Year
- WW = Work Week
- G = Pb-Free Package

*This information is generic. Please refer to device data sheet for actual part marking. Pb-Free indicator, "G" or microdot "▪", may or may not be present. Some products may not follow the Generic Marking.

onsemi, **onsemi**, and other names, marks, and brands are registered and/or common law trademarks of Semiconductor Components Industries, LLC dba "**onsemi**" or its affiliates and/or subsidiaries in the United States and/or other countries. **onsemi** owns the rights to a number of patents, trademarks, copyrights, trade secrets, and other intellectual property. A listing of **onsemi**'s product/patent coverage may be accessed at www.onsemi.com/site/pdf/Patent-Marking.pdf. **onsemi** reserves the right to make changes at any time to any products or information herein, without notice. The information herein is provided "as-is" and **onsemi** makes no warranty, representation or guarantee regarding the accuracy of the information, product features, availability, functionality, or suitability of its products for any particular purpose, nor does **onsemi** assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages. Buyer is responsible for its products and applications using **onsemi**
