



STC05DE150

HYBRID EMITTER SWITCHED BIPOLAR TRANSISTOR ESBT™ 1500 V - 5 A - 0.10 Ω

DATA BRIEF

Table 1: General Features

$V_{CS(ON)}$	I_C	$R_{CS(ON)}$
0.5 V	5 A	0.01 Ω

- HIGH VOLTAGE / LOW CURRENT CASCODE CONFIGURATION
- LOW EQUIVALENT ON RESISTANCE
- VERY FAST-SWITCH UP TO 150 kHz
- SQUARED RBSOA, UP TO 1500 V
- VERY LOW C_{ISS} DRIVEN BY $R_G = 47 \Omega$

APPLICATION

- SINGLE SWITCH SMPS BASED ON THREE PHASE MAINS

DESCRIPTION

The STC05DE150 is manufactured in a hybrid structure, using dedicated high voltage Bipolar and low voltage MOSFET technologies, aimed to providing the best performance in ESBT topology. The STC05DE150 is designed for use in aux flyback smps for any three phase application.

Figure 1: Package

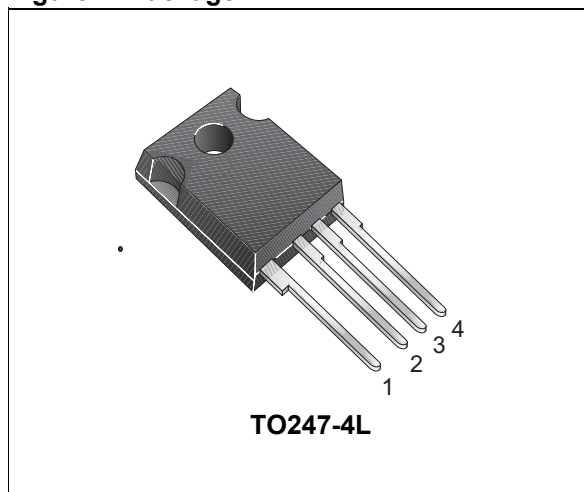


Figure 2: Internal Schematic Diagram

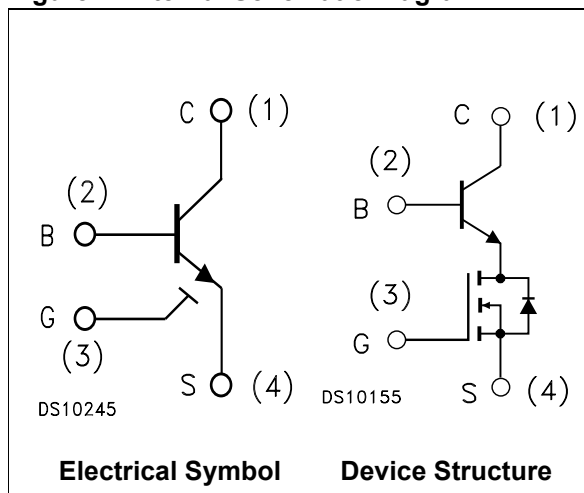
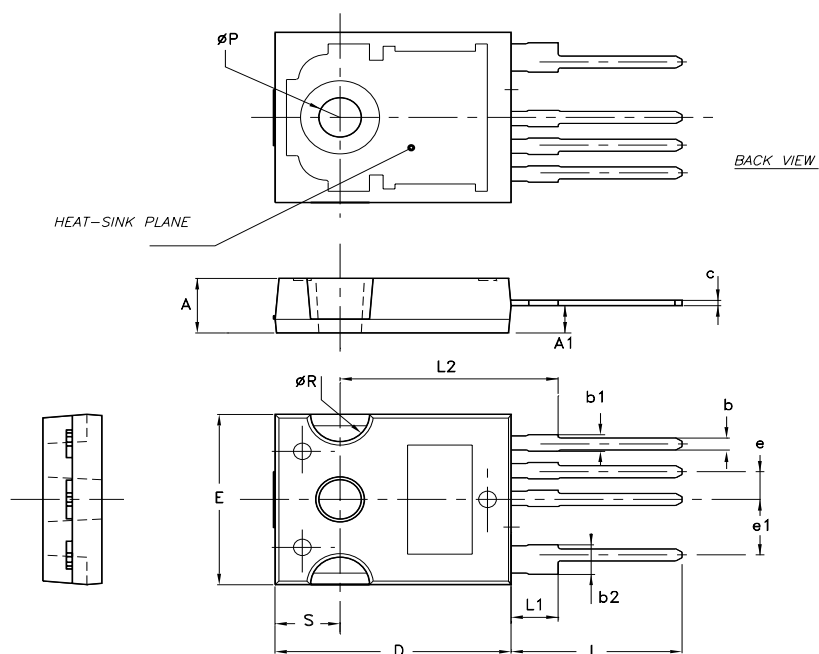


Table 2: Order Code

Part Number	Marking	Package	Packaging
STC05DE150	STC05DE150	TO247-4L	TUBE

TO247-4L MECHANICAL DATA

DIM.	mm		
	MIN.	TYP.	MAX.
A	4.85		5.15
A1	2.20		2.60
b	0.95	1.10	1.30
b1	1.30		1.70
b2	2.50		2.90
c	0.40		0.80
D	19.85		20.15
E	15.45		15.75
e		2.54	
e1		5.08	
L	14.20		14.80
L1	3.70		4.30
L2		18.50	
ØP	3.55		3.65
ØR	4.50		5.50
S		5.50	



7536918A

Table 3: Revision History

Date	Release	Change Designator
29-Mar-2005	1	First Release.

Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specifications mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of STMicroelectronics.

The ST logo is a registered trademark of STMicroelectronics

All other names are the property of their respective owners

© 2005 STMicroelectronics - All Rights Reserved

STMicroelectronics group of companies

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan -
Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States of America
www.st.com