

BDX33B BDX33C BDX34B BDX34C

THERMAL DATA

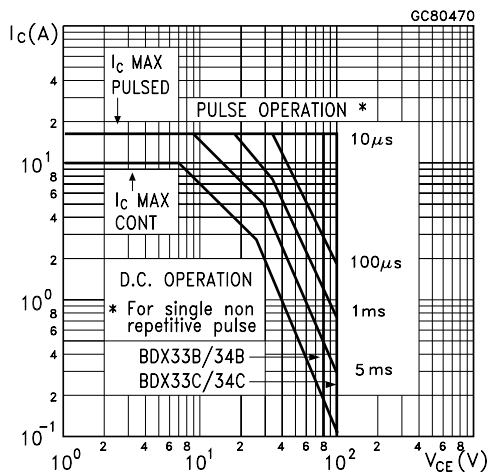
R _{thj-case}	Thermal Resistance Junction-case	1.78	°C/W
-----------------------	----------------------------------	------	------

ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I _{CBO}	Collector Cut-off Current (I _E = 0)	for BDX33B/34B V _{CB} = 80 V			0.2	mA
		for BDX33C/34C V _{CB} = 100V			0.2	mA
I _{CEO}	Collector Cut-off Current (I _B = 0)	T _{case} = 100 °C				
		for BDX33B/34B V _{CE} = 40 V			0.5	mA
I _{EBO}	Emitter Cut-off Current (I _C = 0)	for BDX33C/34C V _{CE} = 50V			0.5	mA
		T _{case} = 100 °C				
V _{CEO(sus)*}	Collector-Emitter Sustaining Voltage (I _B = 0)	for BDX33B/34B V _{CE} = 40 V			10	mA
		for BDX33C/34C V _{CE} = 50 V			10	mA
V _{CER(sus)*}	Collector-emitter Sustaining Voltage (R _{BE} = 100 Ω)	V _{EB} = 5 V			5	mA
		I _C = 100 mA for BDX33B/34B	80			V
V _{CEV(sus)*}	Collector-emitter Sustaining Voltage (V _{BE} = -1.5 V)	for BDX33C/34C	100			V
		I _C = 100 mA for BDX33B/34B	80			V
V _{CE(sat)*}	Collector-emitter Saturation Voltage	for BDX33C/34C	100			V
		I _C = 3 A I _B = 6 mA			2.5	V
V _{BE*}	Base-emitter Voltage	I _C = 3 A V _{CE} = 3 V			2.5	V
h _{FE*}	DC Current Gain	I _C = 3 A V _{CE} = 3 V	750			V
V _{F*}	Parallel-Diode Forward Voltage	I _F = 8 A			4	V
h _{fe}	Small Signal Current Gain	I _C = 1 A V _{CE} = 5 V f = 1MHz	100			

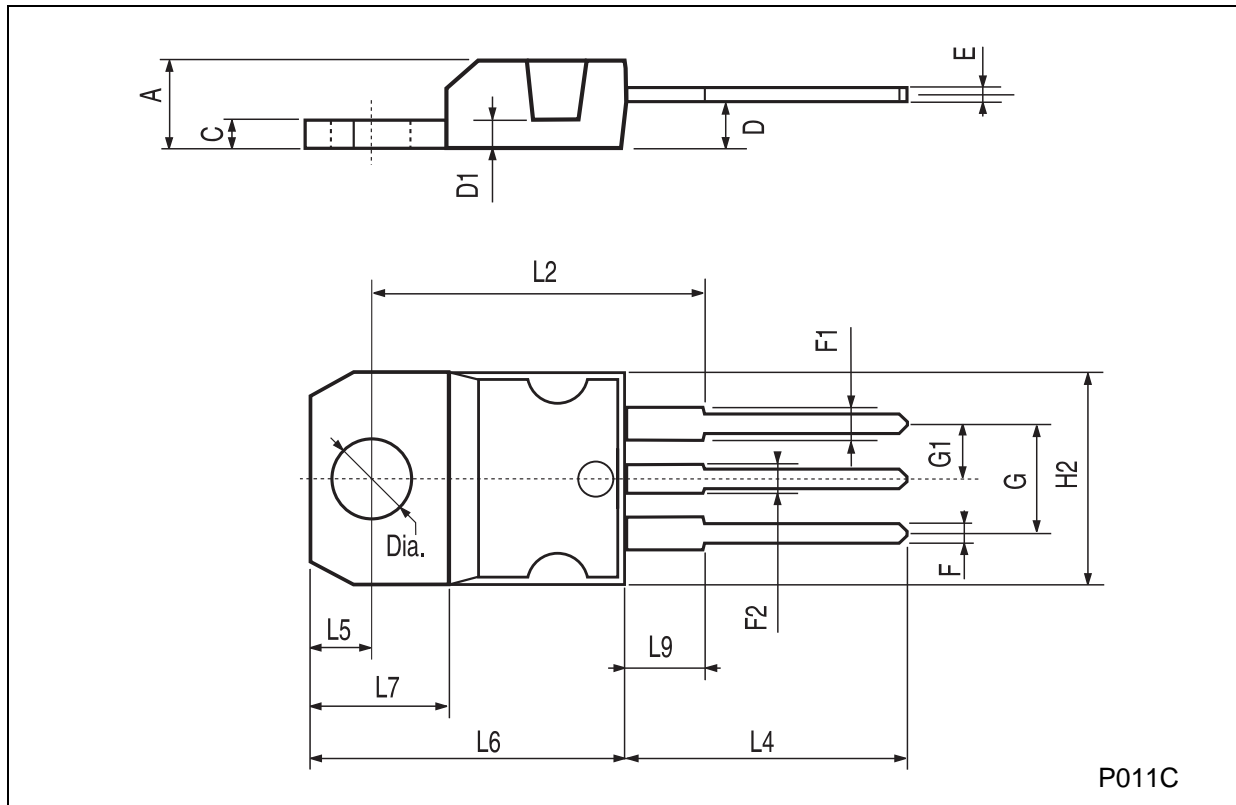
* Pulsed: Pulse duration = 300 μs, duty cycle 1.5 %
For PNP types voltage and current values are negative.

Safe Operating Area



TO-220 MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.40		4.60	0.173		0.181
C	1.23		1.32	0.048		0.051
D	2.40		2.72	0.094		0.107
D1		1.27			0.050	
E	0.49		0.70	0.019		0.027
F	0.61		0.88	0.024		0.034
F1	1.14		1.70	0.044		0.067
F2	1.14		1.70	0.044		0.067
G	4.95		5.15	0.194		0.203
G1	2.4		2.7	0.094		0.106
H2	10.0		10.40	0.393		0.409
L2		16.4			0.645	
L4	13.0		14.0	0.511		0.551
L5	2.65		2.95	0.104		0.116
L6	15.25		15.75	0.600		0.620
L7	6.2		6.6	0.244		0.260
L9	3.5		3.93	0.137		0.154
DIA.	3.75		3.85	0.147		0.151



P011C

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. Specification 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 trademark of STMicroelectronics

© 1999 STMicroelectronics – Printed in Italy – All Rights Reserved

STMicroelectronics GROUP OF COMPANIES

Australia - Brazil - China - Finland - France - Germany - Hong Kong - India - Italy - Japan - Malaysia - Malta - Morocco -
Singapore - Spain - Sweden - Switzerland - United Kingdom - U.S.A.

<http://www.st.com>

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[STMicroelectronics:](#)

[BDX33C](#) [BDX34C](#)