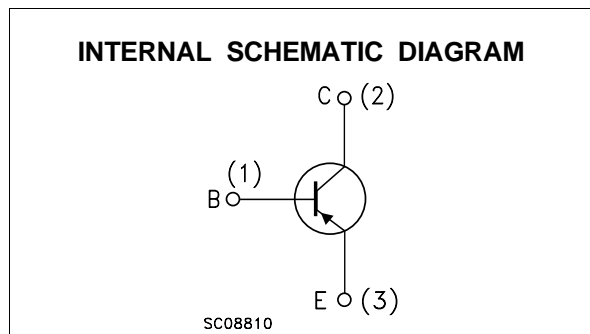
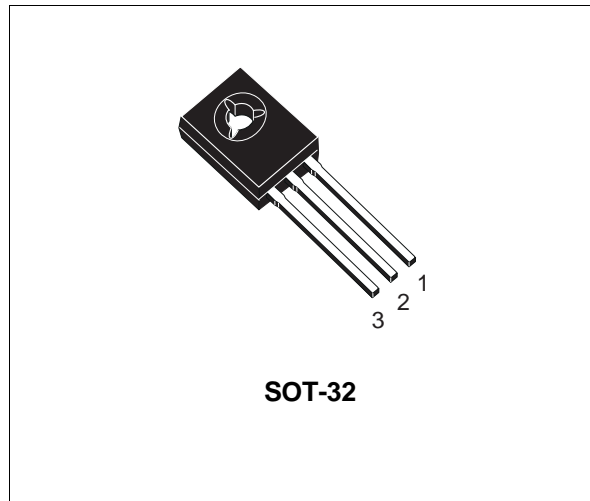


SILICON PNP TRANSISTOR

- STMicroelectronics PREFERRED SALESTYPE
- PNP TRANSISTOR

DESCRIPTION

The BD234 is a silicon Epitaxial-Base PNP power transistor in Jedec SOT-32 plastic package intended for use in medium power linear and switching applications.



ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage ($I_E = 0$)	-45	V
V_{CER}	Collector-Emitter Voltage ($R_{BE} = 1K\Omega$)	-45	V
V_{CEO}	Collector-Emitter Voltage ($I_B = 0$)	-45	V
V_{EBO}	Emitter-Base Voltage ($I_C = 0$)	-5	V
I_C	Collector Current	-2	A
I_{CM}	Collector Peak Current ($t_p < 5ms$)	-6	A
P_{tot}	Total Dissipation at $T_c \leq 25^\circ C$	25	W
T_{stg}	Storage Temperature	-65 to 150	$^\circ C$
T_j	Max. Operating Junction Temperature	150	$^\circ C$

THERMAL DATA

$R_{thj-case}$	Thermal Resistance Junction-case	Max	5	$^{\circ}C/W$
----------------	----------------------------------	-----	---	---------------

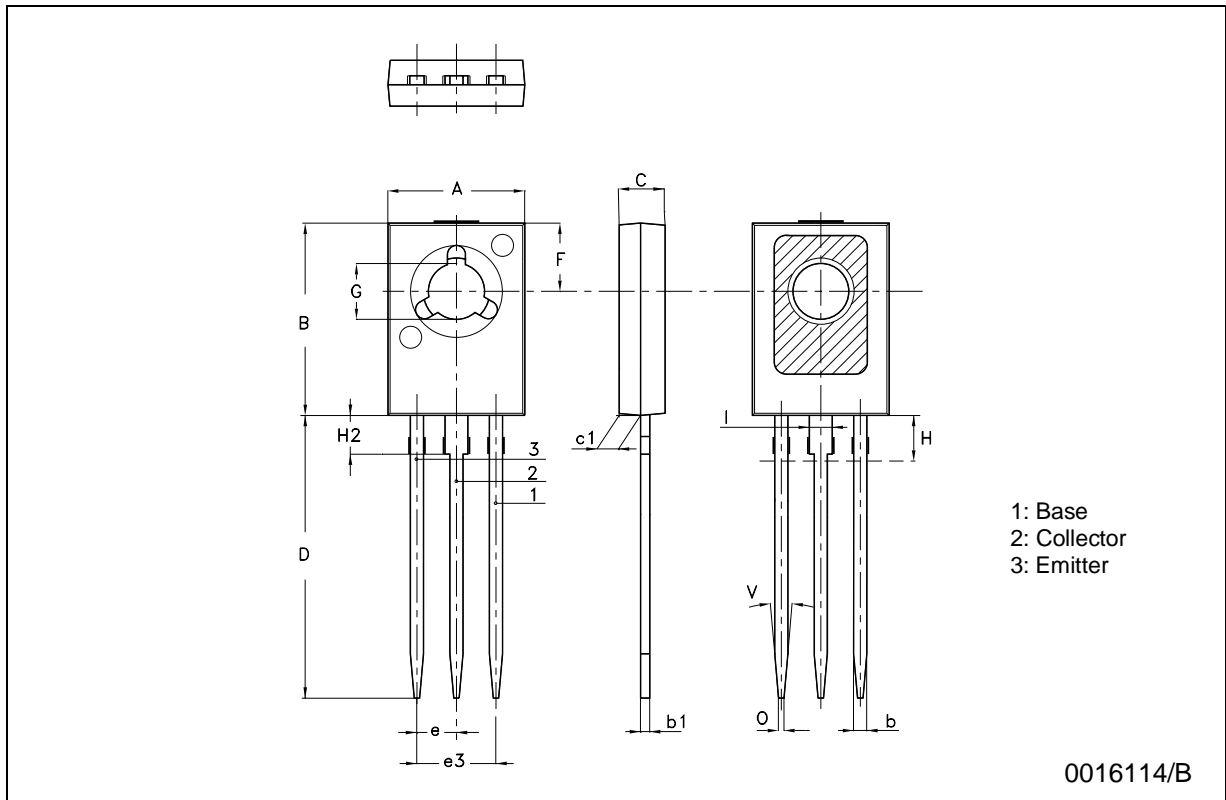
ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut-off Current ($I_E = 0$)	$V_{CB} = -45 V$ $V_{CB} = -45 V$ $T_c = 150^{\circ}C$			-0.1 -2	mA mA
I_{EBO}	Emitter Cut-off Current ($I_C = 0$)	$V_{EB} = -5 V$			-1	mA
$V_{CEO(sus)}^*$	Collector-Emitter Sustaining Voltage ($I_B = 0$)	$I_C = -100 mA$	-45			V
$V_{CE(sat)}^*$	Collector-Emitter Saturation Voltage	$I_C = -1 A$ $I_B = -0.1 A$			-0.6	V
V_{BE}^*	Base-Emitter Voltage	$I_C = -1 A$ $V_{CE} = -2 V$			-1.3	V
h_{FE}^*	DC Current Gain	$I_C = -150 mA$ $V_{CE} = -2 V$ $I_C = -1 A$ $V_{CE} = -2 V$	40 25			
f_T	Transition frequency	$I_C = -250 mA$ $V_{CE} = -10 V$	3			MHz
h_{FE1}/h_{FE2}^*	Matched Pairs	$I_C = -150 mA$ $V_{CE} = -2 V$		1.6		

* Pulsed: Pulse duration = 300 μs , duty cycle 1.5 %

SOT-32 (TO-126) MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	7.4		7.8	0.291		0.307
B	10.5		10.8	0.413		0.425
b	0.7		0.9	0.028		0.035
b1	0.40		0.65	0.015		0.025
C	2.4		2.7	0.094		0.106
c1	1.0		1.3	0.039		0.051
D	15.4		16.0	0.606		0.630
e		2.2			0.087	
e3		4.4			0.173	
F		3.8			0.150	
G	3		3.2	0.118		0.126
H			2.54			0.100
H2		2.15			0.084	
I		1.27			0.05	
O		0.3			0.011	
V		10°			10°	



0016114/B

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

© 2003 STMicroelectronics – Printed in Italy – All Rights Reserved

STMicroelectronics GROUP OF COMPANIES

Australia - Brazil - Canada - China - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States.

<http://www.st.com>