



**BC337-25**  
**BC337-40**

## SMALL SIGNAL NPN TRANSISTORS

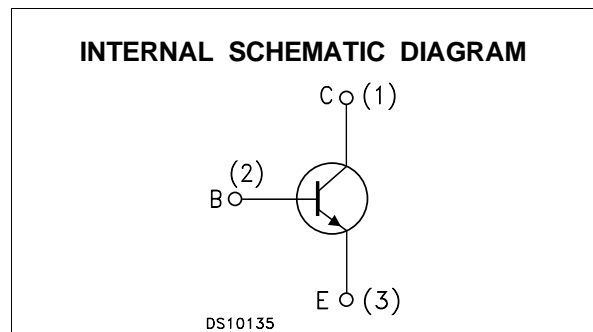
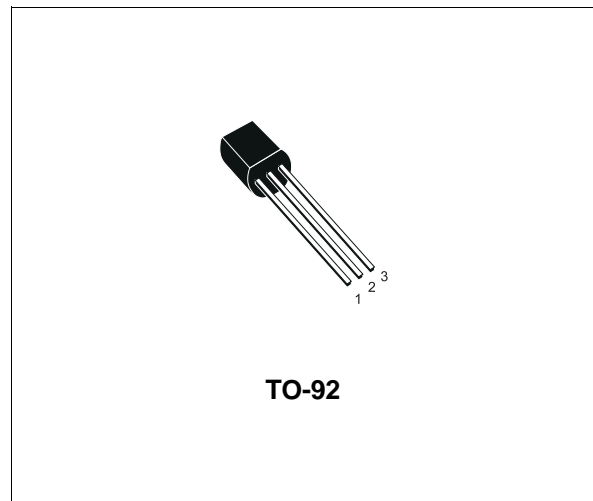
PRELIMINARY DATA

Type	Marking
BC337-25	BC337-25
BC337-40	BC337-40

- SILICON EPITAXIAL PLANAR NPN TRANSISTORS
- TO-92 PACKAGE SUITABLE FOR THROUGH-HOLE PCB ASSEMBLY
- THE PNP COMPLEMENTARY TYPES ARE BC327-25 AND BC327-40 RESPECTIVELY

### APPLICATIONS

- WELL SUITABLE FOR TV AND HOME APPLIANCE EQUIPMENT
- SMALL LOAD SWITCH TRANSISTORS WITH HIGH GAIN AND LOW SATURATION VOLTAGE



### ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage ( $I_E = 0$ )	50	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	0.5	A
$I_{CM}$	Collector Peak Current	1	A
$P_{tot}$	Total Dissipation at $T_C = 25\text{ }^\circ\text{C}$	625	mW
$T_{stg}$	Storage Temperature	-65 to 150	$^\circ\text{C}$
$T_j$	Max. Operating Junction Temperature	150	$^\circ\text{C}$

## BC337-25 / BC337-40

### THERMAL DATA

R <sub>thj-amb</sub> •	Thermal Resistance Junction-Ambient	Max	200	°C/W
R <sub>thj-case</sub> •	Thermal Resistance Junction-Case	Max	83.3	°C/W

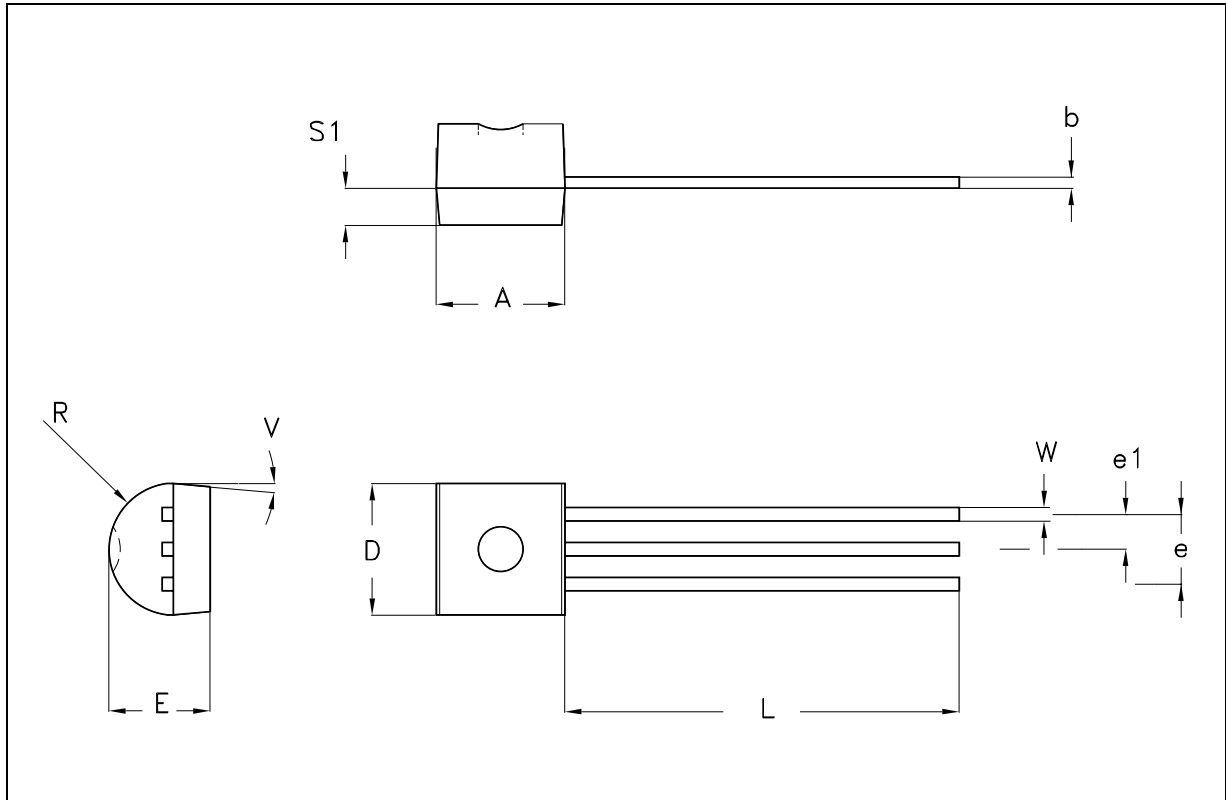
### ELECTRICAL CHARACTERISTICS (T<sub>case</sub> = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I <sub>CBO</sub>	Collector Cut-off Current (I <sub>E</sub> = 0)	V <sub>CB</sub> = 20 V V <sub>CB</sub> = 20 V      T <sub>C</sub> = 150 °C			100 5	nA μA
I <sub>EBO</sub>	Emitter Cut-off Current (I <sub>C</sub> = 0)	V <sub>EB</sub> = 5 V			100	nA
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage (I <sub>E</sub> = 0)	I <sub>C</sub> = 10 μA	50			V
V <sub>(BR)CEO*</sub>	Collector-Emitter Breakdown Voltage (I <sub>B</sub> = 0)	I <sub>C</sub> = 10 mA	45			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage (I <sub>C</sub> = 0)	I <sub>E</sub> = 10 μA	5			V
V <sub>CE(sat)*</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 500 mA      I <sub>B</sub> = 50 mA			0.7	V
V <sub>BE(on)*</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 500 mA      V <sub>CE</sub> = 1 V			1.2	V
h <sub>FE*</sub>	DC Current Gain	I <sub>C</sub> = 100 mA      V <sub>CE</sub> = 1 V for <b>BC337-25</b> for <b>BC337-40</b>	160 250		400 600	
f <sub>T</sub>	Transition Frequency	I <sub>C</sub> = 10 mA    V <sub>CE</sub> = 5 V    f = 100MHz	100			MHz
C <sub>CBO</sub>	Collector-Base Capacitance	I <sub>E</sub> = 0      V <sub>CB</sub> = 10 V    f = 1 MHz		5		pF

\* Pulsed: Pulse duration = 300 μs, duty cycle ≤ 2 %

**TO-92 MECHANICAL DATA**

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	4.32		4.95	0.170		0.195
b	0.36		0.51	0.014		0.020
D	4.45		4.95	0.175		0.194
E	3.30		3.94	0.130		0.155
e	2.41		2.67	0.095		0.105
e1	1.14		1.40	0.045		0.055
L	12.70		15.49	0.500		0.609
R	2.16		2.41	0.085		0.094
S1	1.14		1.52	0.045		0.059
W	0.41		0.56	0.016		0.022
V	4 degree		6 degree	4 degree		6 degree



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

© 2002 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>