



**BC327-25**  
**BC327-40**

## SMALL SIGNAL PNP TRANSISTORS

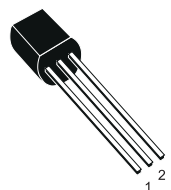
PRELIMINARY DATA

Type	Marking
BC327-25	BC327-25
BC327-40	BC327-40

- SILICON EPITAXIAL PLANAR PNP TRANSISTORS
- TO-92 PACKAGE SUITABLE FOR THROUGH-HOLE PCB ASSEMBLY
- THE NPN COMPLEMENTARY TYPES ARE BC337-25 AND BC337-40 RESPECTIVELY

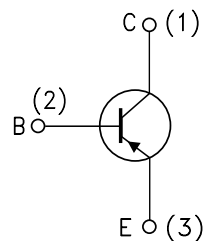
### APPLICATIONS

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



TO-92

### INTERNAL SCHEMATIC DIAGRAM



DS10125

### 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	$^{\circ}\text{C}$

## BC327-25 / BC327-40

### 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

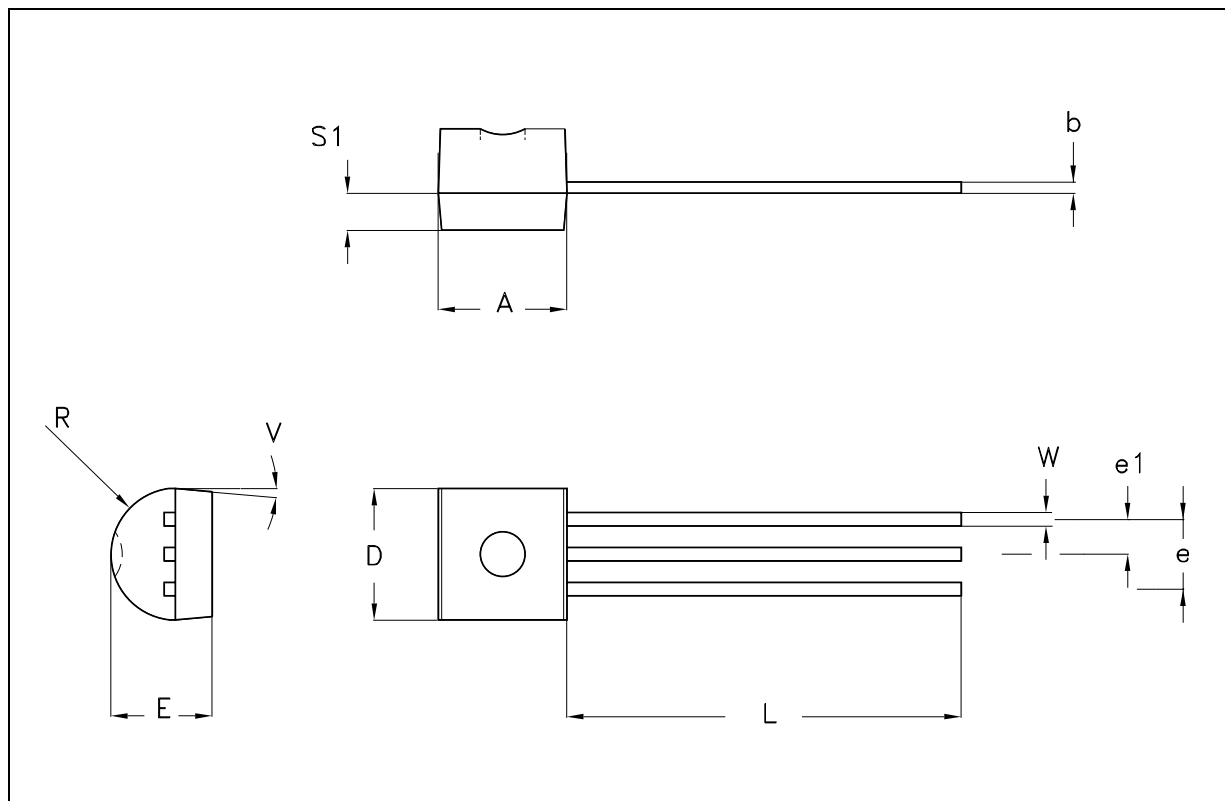
### ELECTRICAL CHARACTERISTICS (T<sub>case</sub> = 25 °C unless otherwise specified)

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>BC327-25</b> for <b>BC327-40</b>	160 250		400 600	
f <sub>T</sub>	Transition Frequency	I <sub>C</sub> = -10mA   V <sub>CE</sub> = -5 V   f = 100MHz	80			MHz
C <sub>CBO</sub>	Collector-Base Capacitance	I <sub>E</sub> = 0      V <sub>CB</sub> = -10 V      f = 1 MHz		10		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



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