

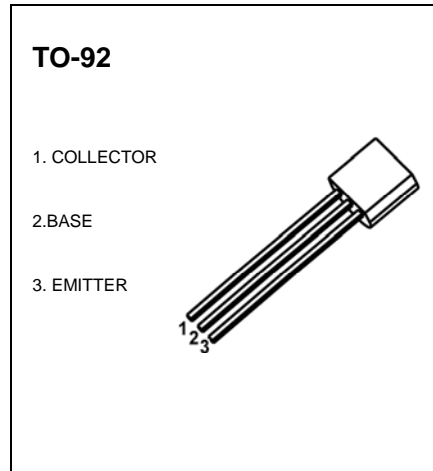


TO-92 Plastic-Encapsulate Transistors

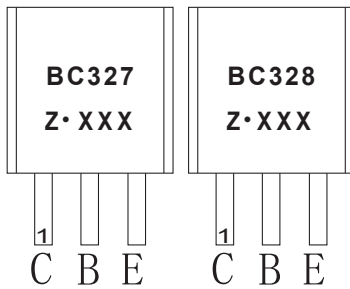
BC327/BC328 TRANSISTOR (PNP)

FEATURES

- Power dissipation

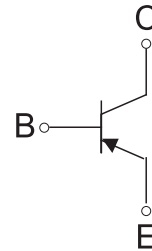


MARKING



BC327,BC328=Device code
Solid dot=Green molding compound device,
if none,the normal device
Z=Rank of h_{FE}
XXX=Code

Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
BC327	TO-92	Bulk	1000pcs/Bag
BC327-TA	TO-92	Tape	2000pcs/Box
BC328	TO-92	Bulk	1000pcs/Bag
BC328-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	BC327	-50
		BC328	-30
V_{CEO}	Collector-Emitter Voltage	BC327	-45
		BC328	-25
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-800	mA
P_C	Collector Power Dissipation	625	mW
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

$T_a=25^\circ\text{C}$ unless otherwise specified

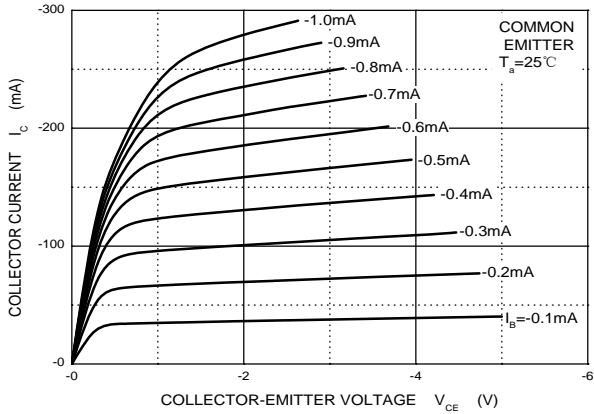
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage BC327 BC328	V_{CBO}	$I_C = -100\mu\text{A}, I_E = 0$	-50 -30			V
Collector-emitter breakdown voltage BC327 BC328	V_{CEO}	$I_C = -10\text{mA}, I_B = 0$	-45 -25			V
Emitter-base breakdown voltage	V_{EBO}	$I_E = -10\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current BC327 BC328	I_{CBO}	$V_{CB} = -45\text{V}, I_E = 0$ $V_{CB} = -25\text{V}, I_E = 0$			-0.1 -0.1	μA
Collector cut-off current BC327 BC328	I_{CEO}	$V_{CE} = -40\text{V}, I_B = 0$ $V_{CE} = -20\text{V}, I_B = 0$			-0.2 -0.2	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE} = -1\text{V}, I_C = -100\text{mA}$	100		630	
	$h_{FE(2)}$	$V_{CE} = -1\text{V}, I_C = -300\text{mA}$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500\text{mA}, I_B = -50\text{mA}$			-1.2	V
Base-emitter voltage	V_{BE}	$V_{CE} = -1\text{V}, I_C = -300\text{mA}$			-1.2	V
Transition frequency	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}$ $f = 100\text{MHz}$	260			MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}, I_E = 0$ $f = 1\text{MHz}$		12		pF

CLASSIFICATION OF h_{FE}

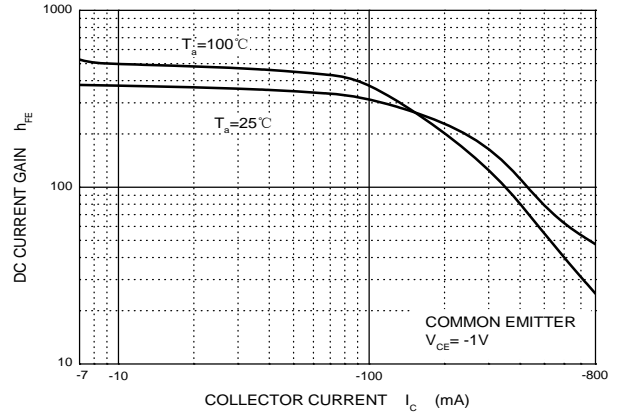
Rank	16	25	40
Range	100-250	160-400	250-630

Typical Characteristics

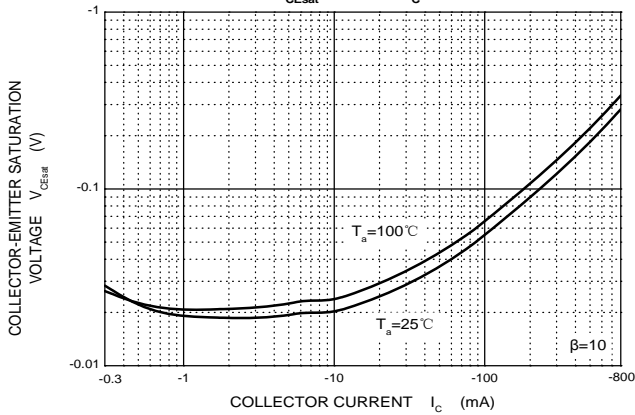
Static Characteristic



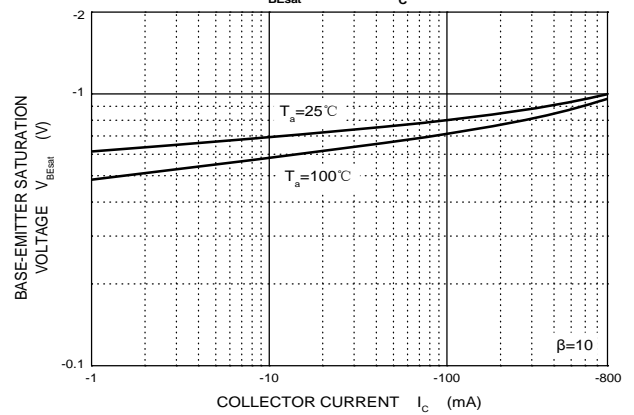
h_{FE} — I_c



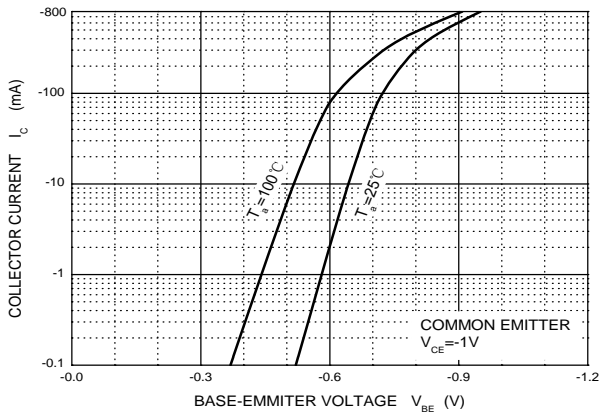
V_{CEsat} — I_c



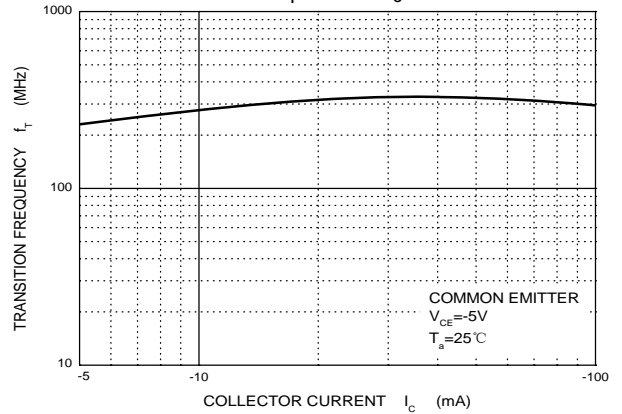
V_{BEsat} — I_c



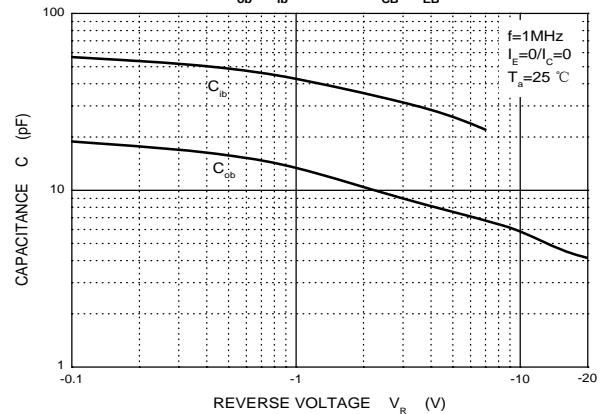
I_c — V_{BE}



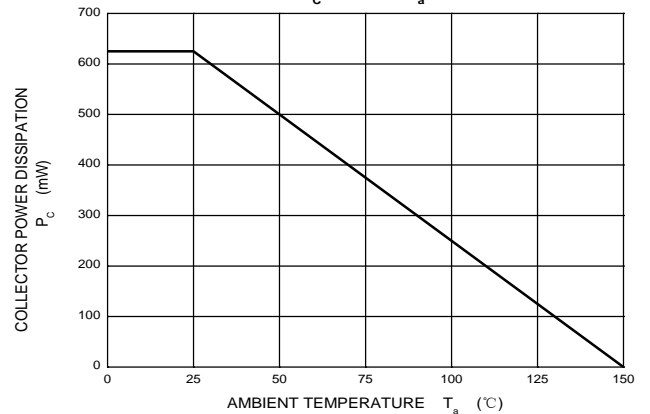
f_T — I_c



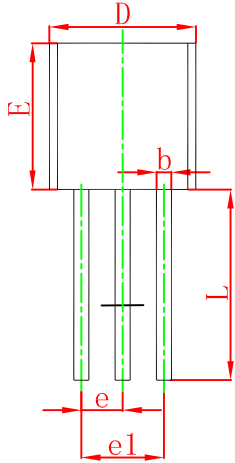
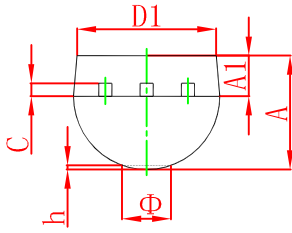
C_{ob}/C_{ib} — V_{CB}/V_{EB}



P_c — T_a

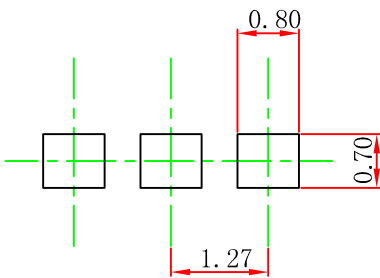


TO-92 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92 Suggested Pad Layout



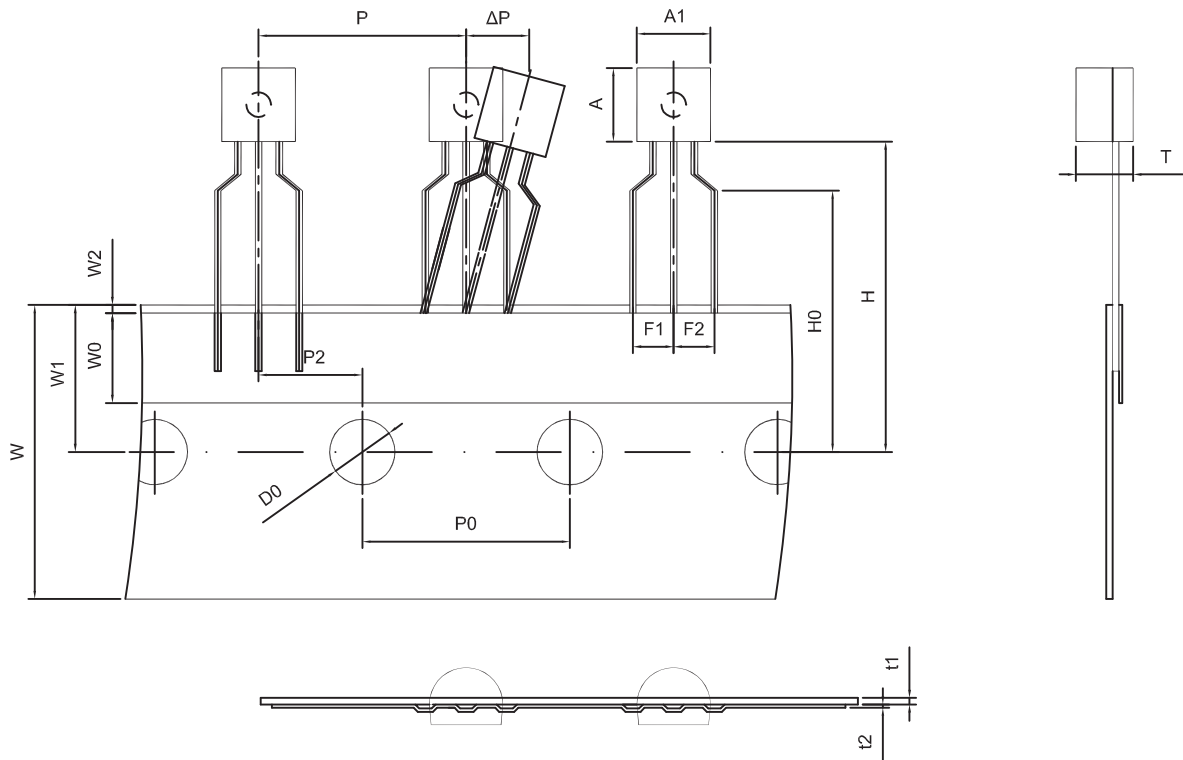
Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

NOTICE

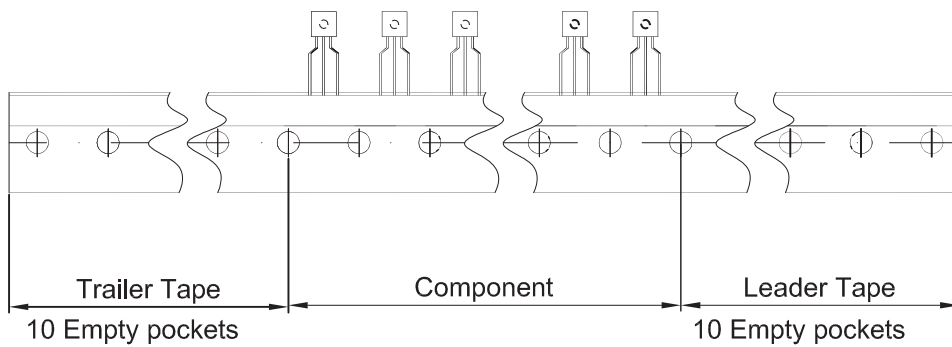
JSCJ reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSCJ does not assume any liability arising out of the application or use of any product described herein.

TO-92 PACKAGE TAPING DIMENSION



Dimensions are in millimeter

A1	A	T	P	P0	P2	F1	F2	W
4.5	4.5	3.5	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0 MAX.	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000 pcs	333×162×43	20,000 pcs	350×340×250