



JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD

TO-92 Plastic-Encapsulate Transistors

BC327/BC328

TRANSISTOR (PNP)

FEATURES

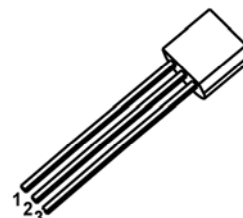
- Power dissipation

TO-92

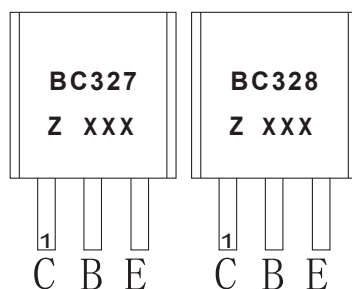
1. COLLECTOR

2. BASE

3. EMITTER



MARKING



BC327,BC328=Device code

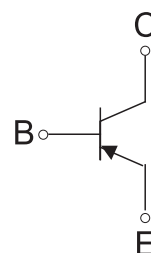
Z=Rank of h_{FE}

XXX=Code

GXX=Green molding compound device

CXX=Normal molding compound device

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	V
		BC328 -30	
V_{CEO}	Collector-Emitter Voltage	BC327 -45	V
		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

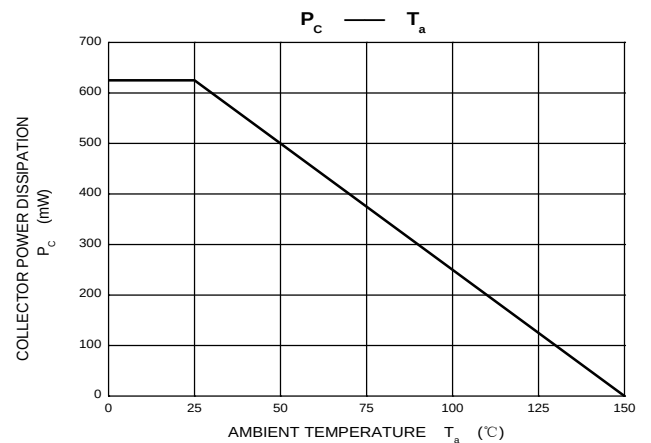
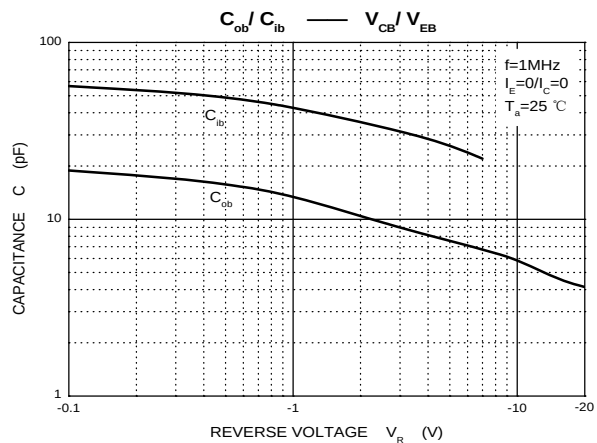
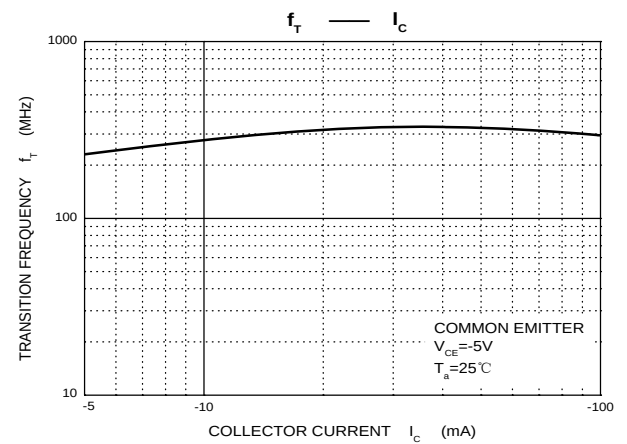
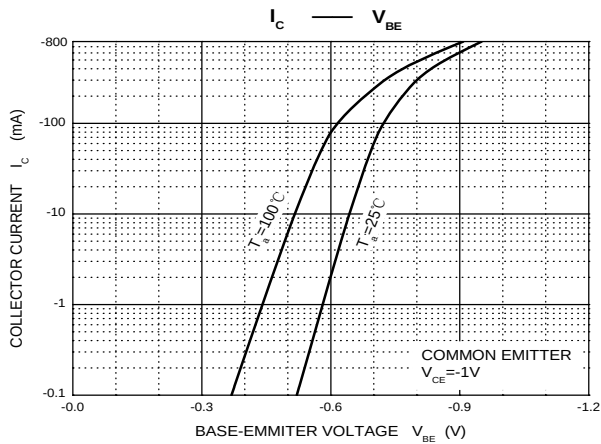
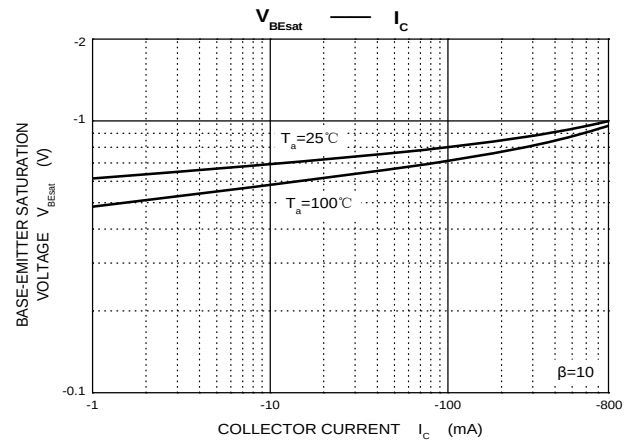
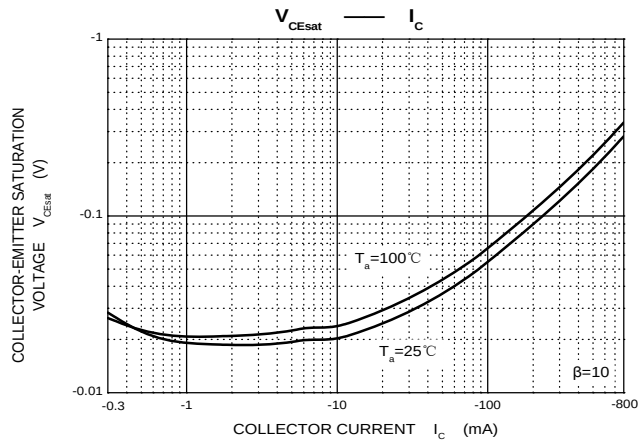
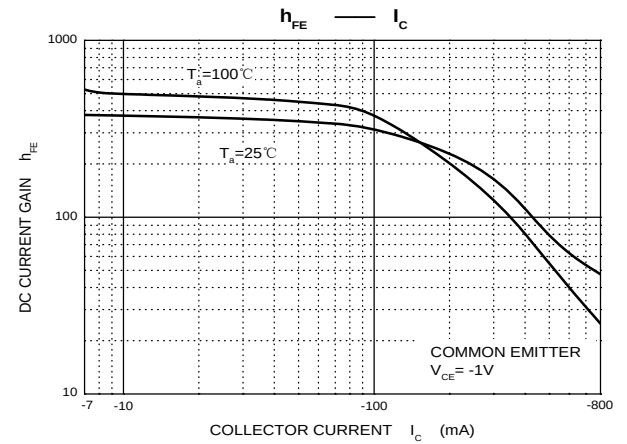
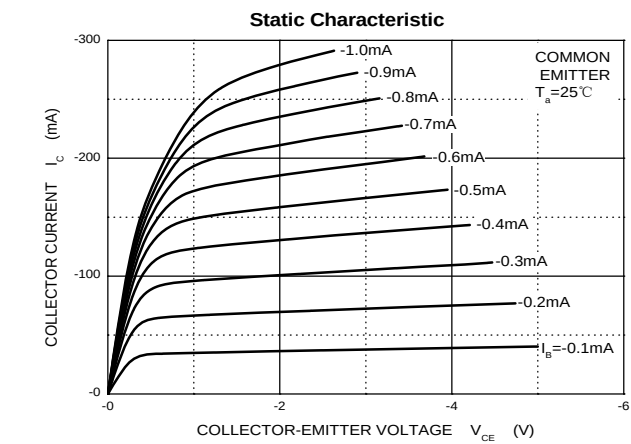
$T_a=25^{\circ}\text{C}$ unless otherwise specified

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

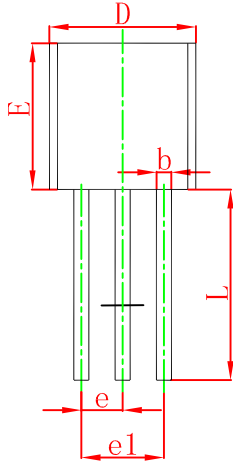
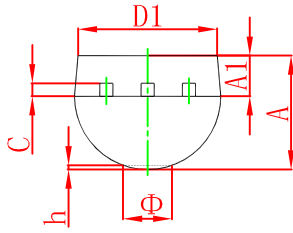
CLASSIFICATION OF h_{FE}

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

Typical Characteristics

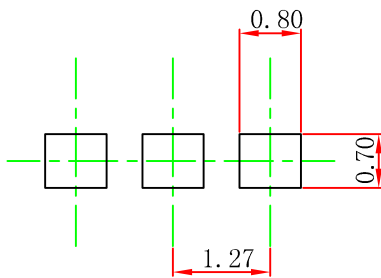


TO-92 Package Outline Dimensions



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



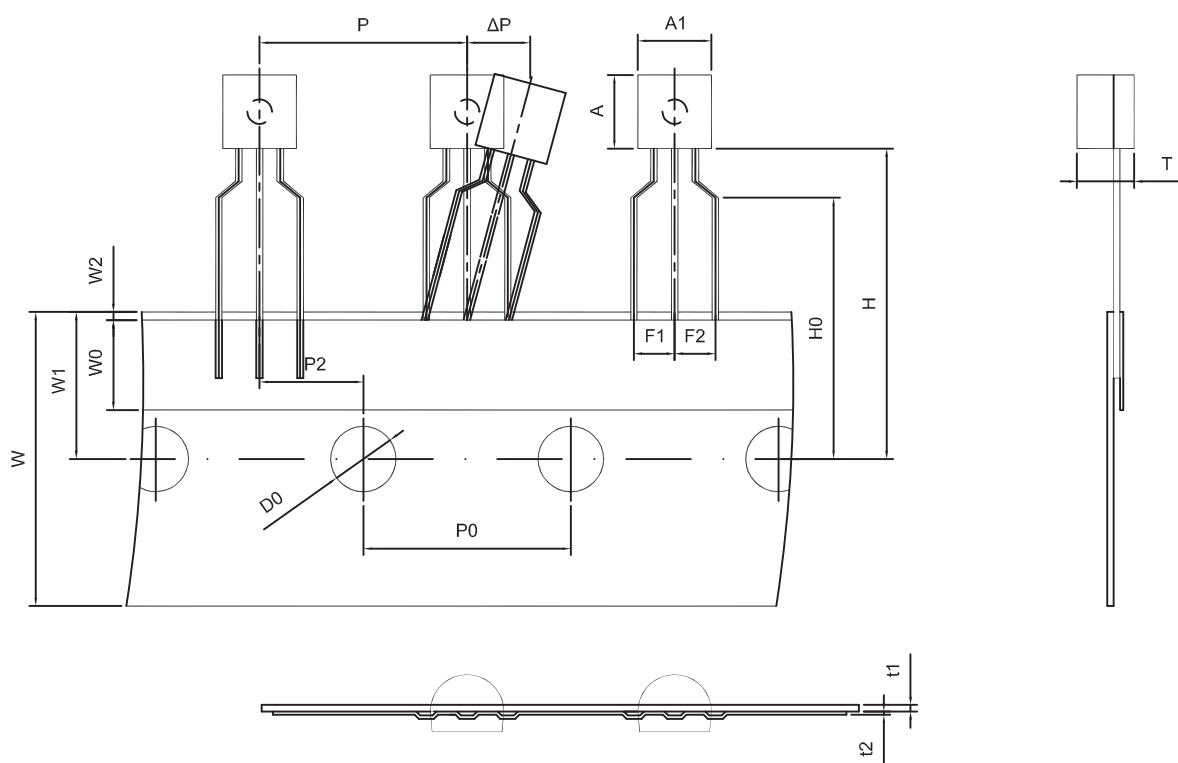
Note:

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

NOTICE

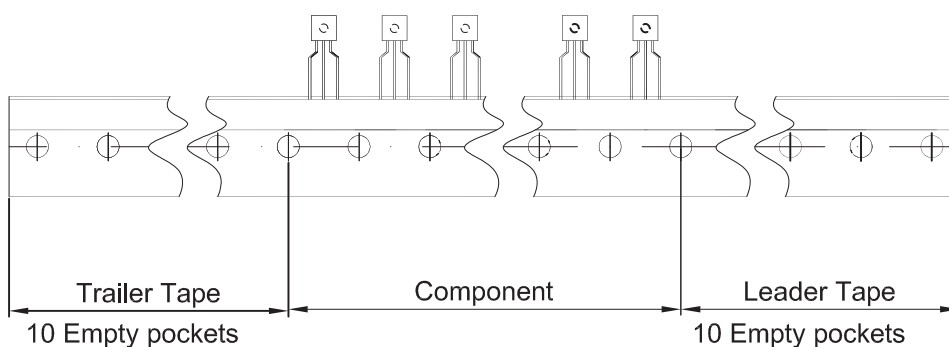
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TO-92 PACKAGE TAPING DIMENSION



Dimiensions 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