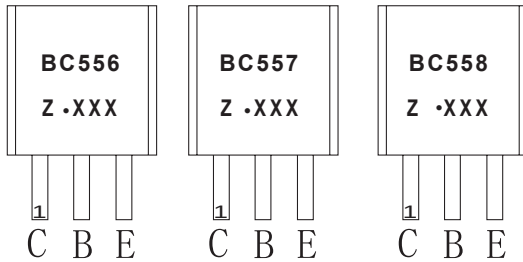


**TO-92 Plastic-Encapsulate Transistors****BC556 / BC557 / BC558** TRANSISTOR (PNP)**FEATURES**

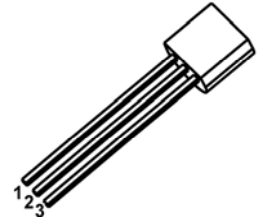
- High Voltage
- Complement to BC546,BC547,BC548

MARKING

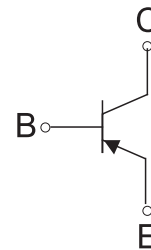
BC556,BC557,BC558=Device code

Solid dot=Green molding compound device,
if none,the normal deviceZ=Rank of h_{FE}

XXX=Code

TO – 92

1. COLLECTOR
2. BASE
3. EMITTER

Equivalent Circuit**ORDERING INFORMATION**

Part Number	Package	Packing Method	Pack Quantity
BC556	TO-92	Bulk	1000pcs/Bag
BC556-TA	TO-92	Tape	2000pcs/Box
BC557	TO-92	Bulk	1000pcs/Bag
BC557-TA	TO-92	Tape	2000pcs/Box
BC558	TO-92	Bulk	1000pcs/Bag
BC558-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	BC556	-80	V
		BC557	-50	
		BC558	-30	
V_{CEO}	Collector-Emitter Voltage	BC556	-65	V
		BC557	-45	
		BC558	-30	
V_{EBO}	Emitter-Base Voltage		-5	V
I_C	Collector Current-Continuous		-0.1	A
P_C	Collector Power Dissipation		625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient		200	$^{\circ}\text{C/W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range		-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

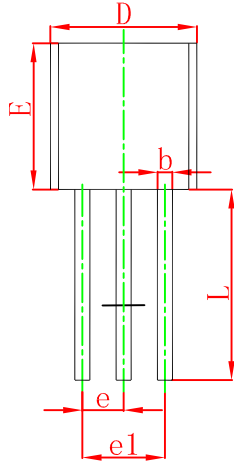
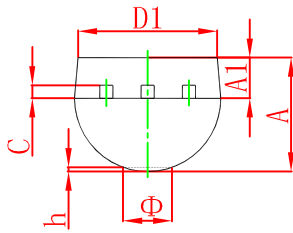
$T_a=25^\circ\text{C}$ unless otherwise specified

Parameter		Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	BC556	$V_{(BR)CBO}$	$I_C = -0.1\text{mA}, I_E = 0$	-80			V
	BC557			-50			
	BC558			-30			
Collector-emitter breakdown voltage	BC556	$V_{(BR)CEO}$	$I_C = -2\text{mA}, I_B = 0$	-65			V
	BC557			-45			
	BC558			-30			
Emitter-base breakdown voltage		$V_{(BR)EBO}$	$I_E = -100\mu\text{A}, I_C = 0$	-5			V
Collector cut-off current	BC556	I_{CBO}	$V_{CB} = -70\text{V}, I_E = 0$			-0.1	μA
	BC557		$V_{CB} = -45\text{V}, I_E = 0$			-0.1	μA
	BC558		$V_{CB} = -25\text{V}, I_E = 0$			-0.1	μA
Collector cut-off current	BC556	I_{CEO}	$V_{CE} = -60\text{V}, I_B = 0$			-0.1	μA
	BC557		$V_{CE} = -40\text{V}, I_B = 0$			-0.1	μA
	BC558		$V_{CE} = -25\text{V}, I_B = 0$			-0.1	μA
Emitter cut-off current		I_{EBO}	$V_{EB} = -5\text{V}, I_C = 0$			-0.1	μA
DC current gain		h_{FE}^*	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	120		800	
Collector-emitter saturation voltage		$V_{CE(sat)}$	$I_C = -10\text{mA}, I_B = -0.5\text{mA}$			-0.3	V
			$I_C = -100\text{mA}, I_B = -5\text{mA}$			-0.65	V
Base-emitter saturation voltage		$V_{BE(sat)}$	$I_C = -10\text{mA}, I_B = -0.5\text{mA}$			-0.8	V
			$I_C = -100\text{mA}, I_B = -5\text{mA}$			-1	V
Base-emitter voltage		V_{BE}	$V_{CE} = -5\text{V}, I_C = -2\text{mA}$	-0.55		-0.7	V
			$V_{CE} = -5\text{V}, I_C = -10\text{mA}$			-0.82	V
Collector output capacitance		C_{ob}	$V_{CB} = -10\text{V}, I_E = 0, f = 1\text{MHz}$			6	pF
Transition frequency	BC556	f_T	$V_{CE} = -5\text{V}, I_C = -10\text{mA}, f = 100\text{MHz}$		150		MHz
	BC557				150		MHz
	BC558				150		MHz

CLASSIFICATION of h_{FE}

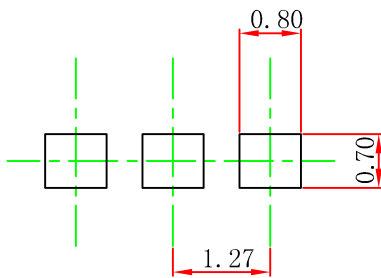
RANK	A	B	C
RANGE	120-220	180-460	420-800

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



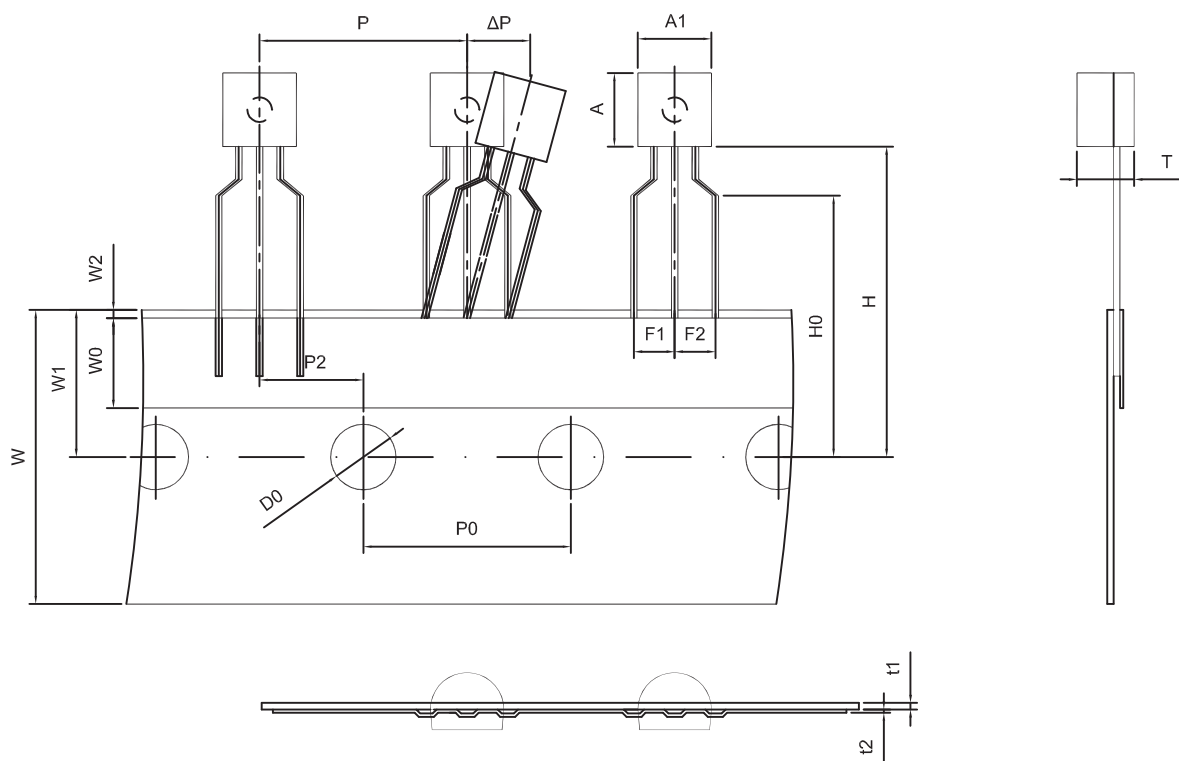
Note:

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

NOTICE

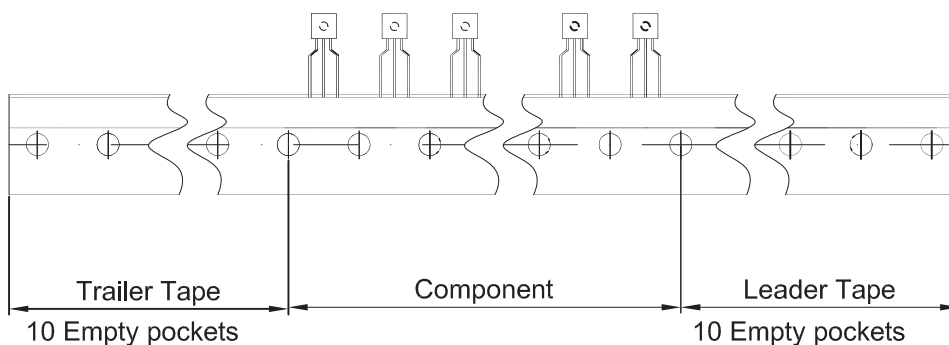
JSCJ reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. JSCJ does not assume any liability arising out of the application or use of any product described herein.

TO-92 PACKAGE TAPING DIMENSION



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