JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

JSCJ

TO-92 Plastic-Encapsulate Transistors

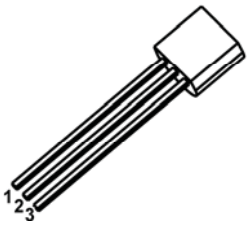
2SA1015 TRANSISTOR (PNP)

TO-92

1.EMITTER

2.COLLECTOR

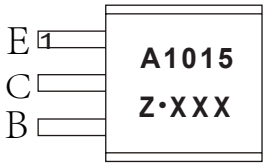
3.BASE



FEATURES

- Power dissipation

MARKING



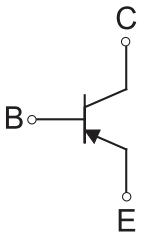
A1015=Device code

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
2SA1015	TO-92	Bulk	1000pcs/Bag
2SA1015-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-150	mA
P_D	Collector Power Dissipation	400	mW
$R_{\theta JA}$	Thermal Resistance rom Junction to Ambient	312	℃ /W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

ELECTRICAL CHARACTERISTICS

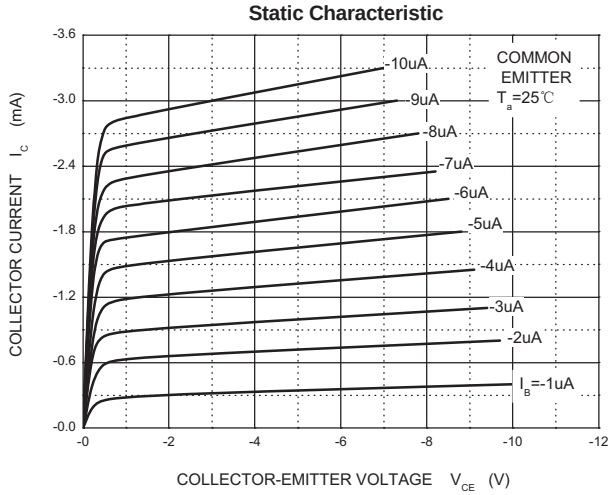
T_a=25℃ unless otherwise specified

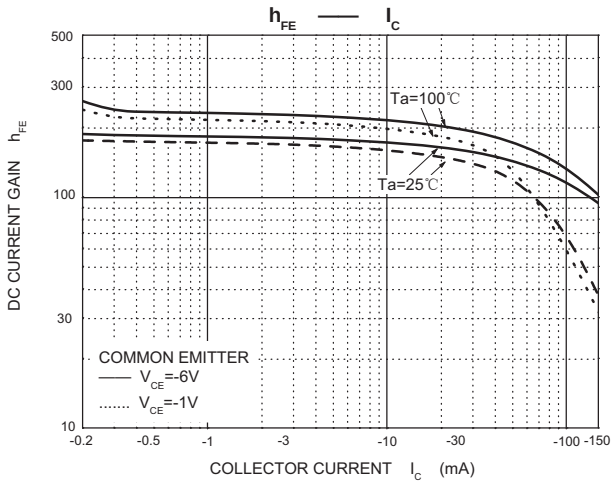
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -100μA, I_E=0	-50			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -0.1mA, I_B=0	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}= -50V,I_E=0			-0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= -50V, I_B=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= -5V, I_C=0			-0.1	μA
DC current gain	h_{FE}	V_{CE}= -6V, I_C= -2mA	70		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= -100mA, I_B= -10mA			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= -100mA, I_B= -10mA			-1.1	V
Transition frequency	f_T	V_{CE}= -10 V, I_C= -1mA f =30MHz	80			MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0,f=1MH.			7	pF
Noise figure	NF	V_{CE}= -6 V, I_C= -0.1mA, f =1#Hz,R_G=10#/			6	dB

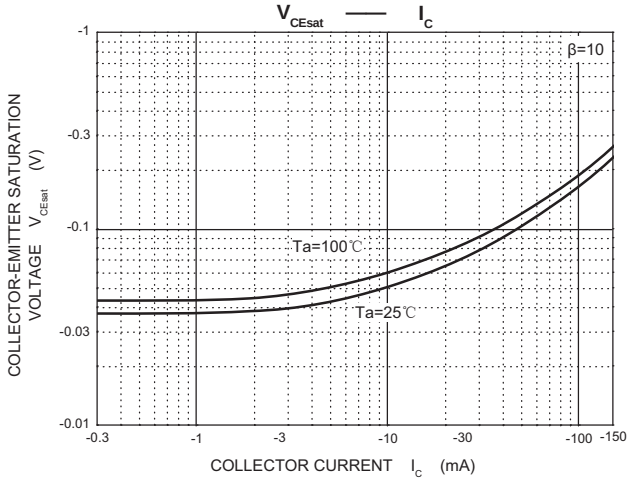
CLASSIFICATION OF h_{FE}

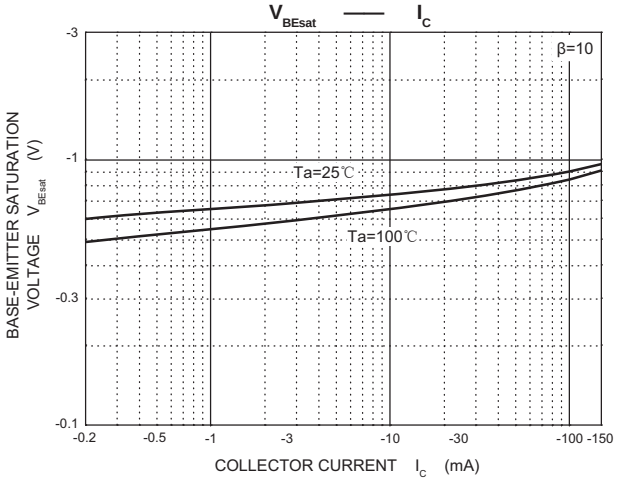
Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

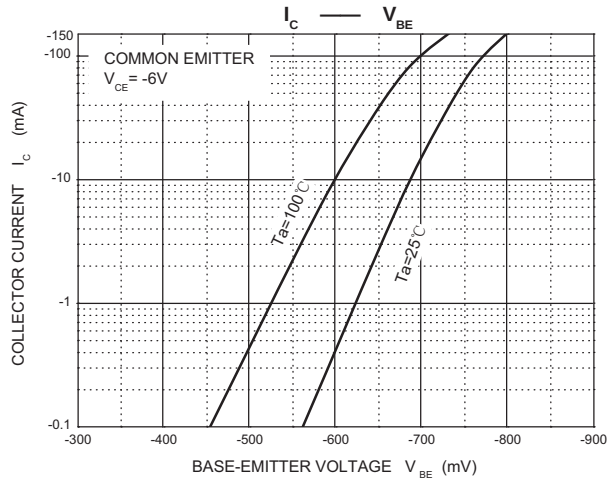
Typical Characteristics

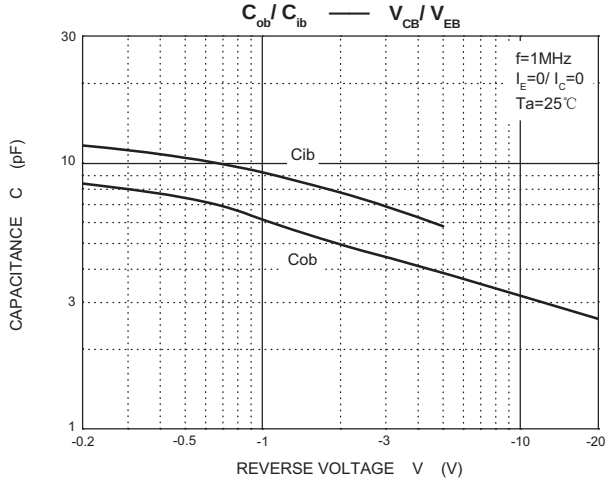


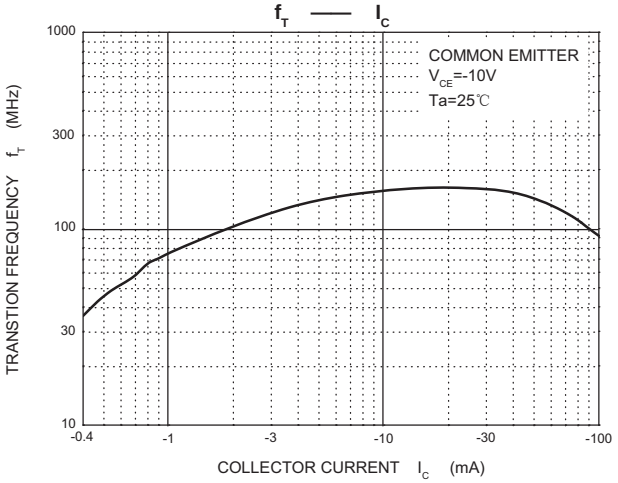


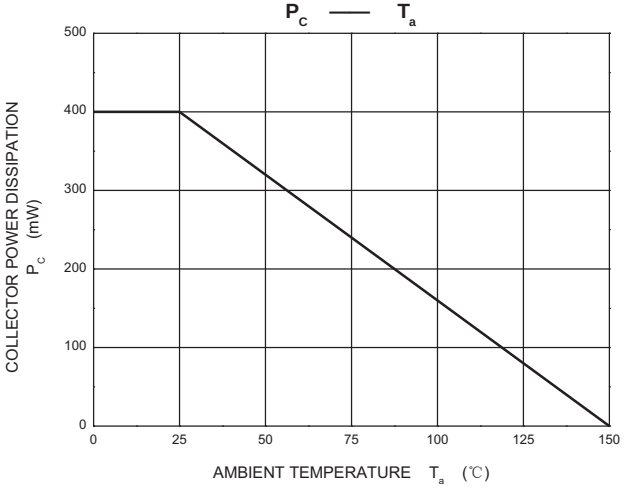




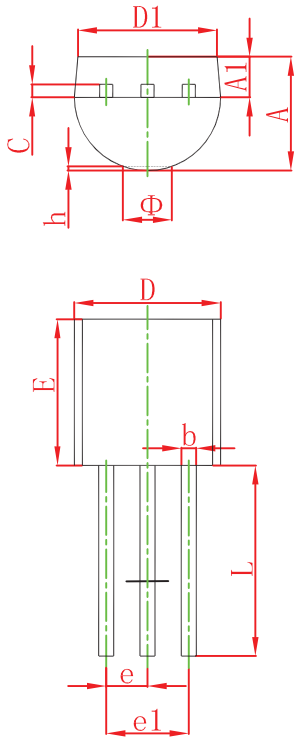






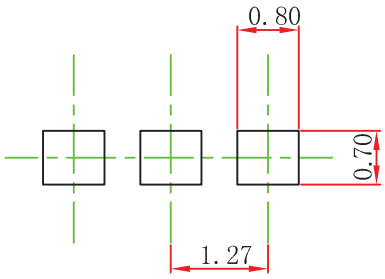


TO-92 Package Outline Dimensions



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

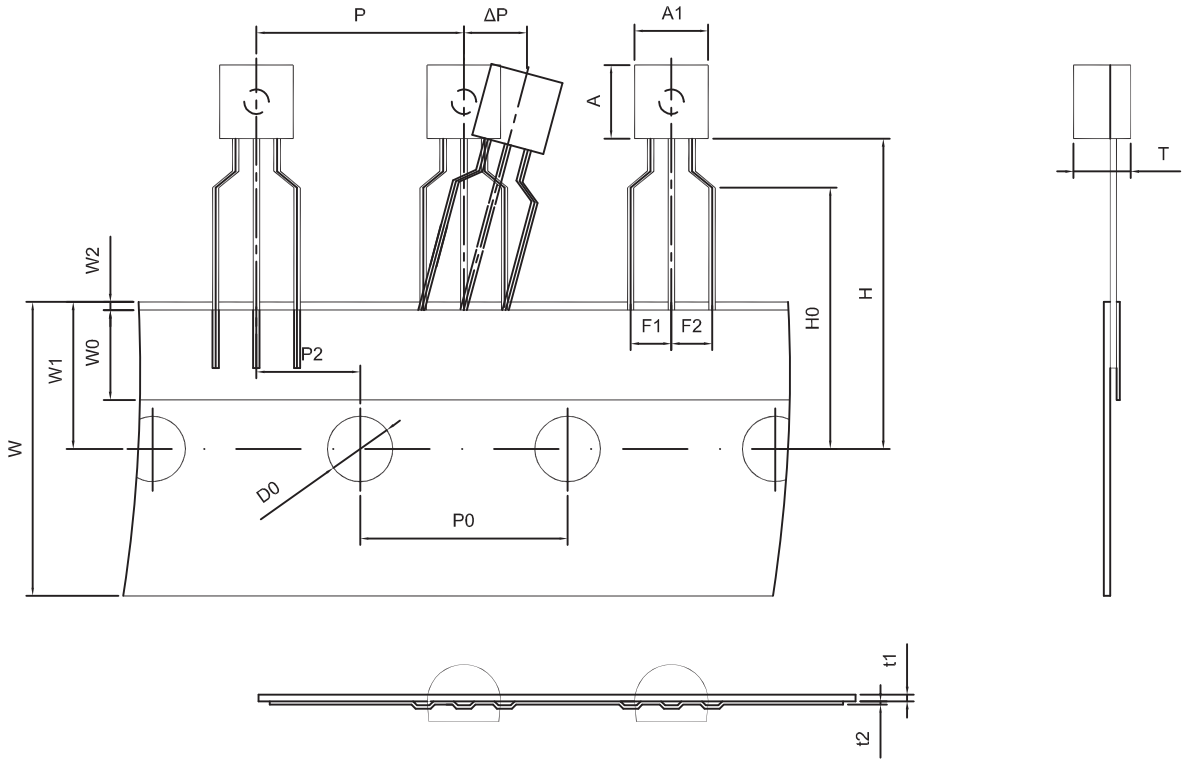
TO-92 Suggested Pad Layout



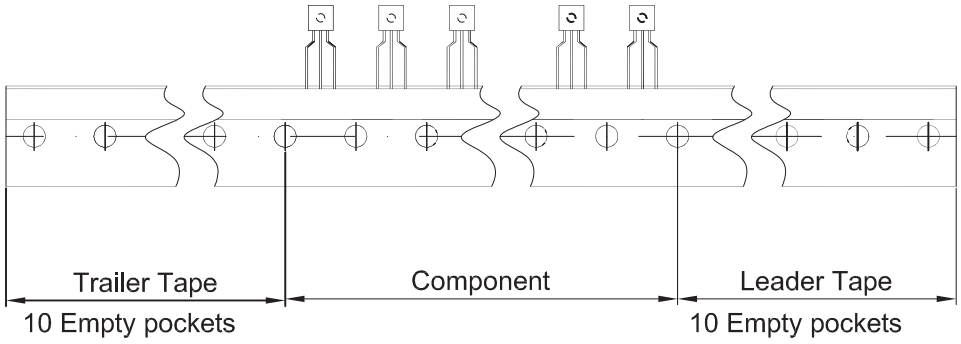
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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 Tape and Reel



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