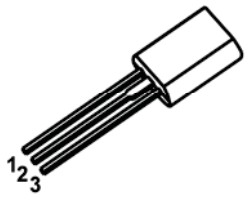
JIANGSU CHANGJING ELECTRONICS TECHNOLOGY CO., LTD.

JSCJ TO-92MOD Plastic-Encapsulate Transistors

2SC2235 TRANSISTOR (NPN)

TO-92MOD

1. EMITTER
2. COLLECTER
3. BASE



FEATURES

Complementary to 2SA965

MARKING

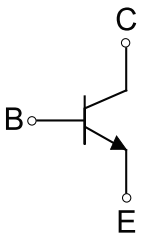


C2235=Device code

Soliddot= Greenmdding compound device, if none, the normal device

XXX=Code

Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2SC2235	TO-92MOD	Bulk	500pcs/Bag
2SC2235-TA	TO-92MOD	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0.8	A
P_D	Collector Power Dissipation	900	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	139	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

ELECTRICAL CHARACTERISTICS

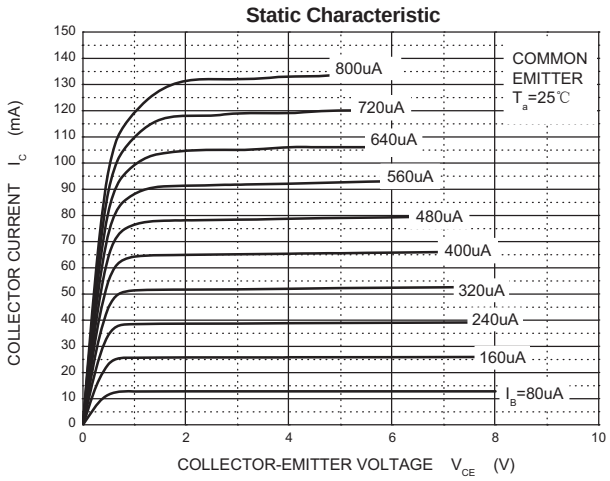
T_a=25℃ unless otherwise specified

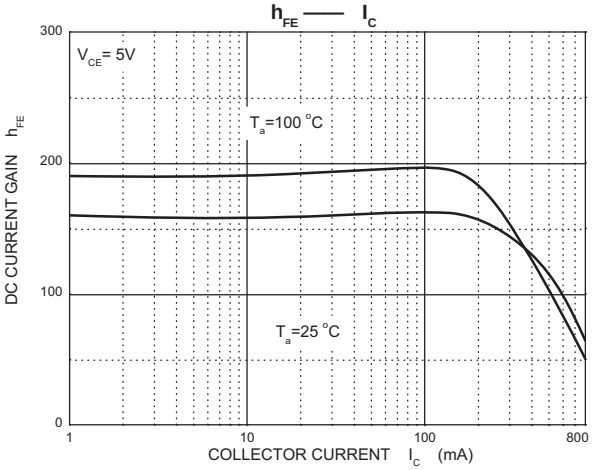
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=1mA,I_E=0	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA,I_B=0	120			V
Emitter-Base breakdown voltage	$V_{(BR)EBO}$	I_E=1mA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=120V,I_E=0			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}=5V,I_C=100mA	80		240	
Collector-emitter saturation voltage	V_{CE}(sat)	I_C=500mA,I_B=50mA			1.0	V
Base-emitter voltage	V_{BE}	I_C=500mA, V_{CE}=5V			1.0	V
Transition frequency	f_T	V_{CE}=5V, I_C=100mA		120		MHz
Collector output capacitance	Cob	V_{CB}=10V, I_E=0 f=1MHz			30	pF

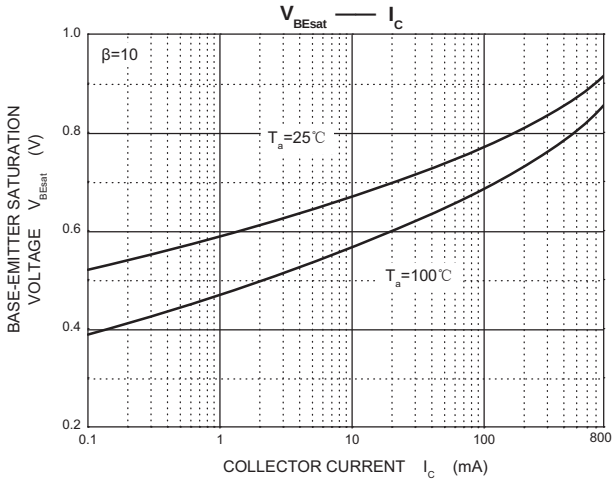
CLASSIFICATION OF h_{FE}

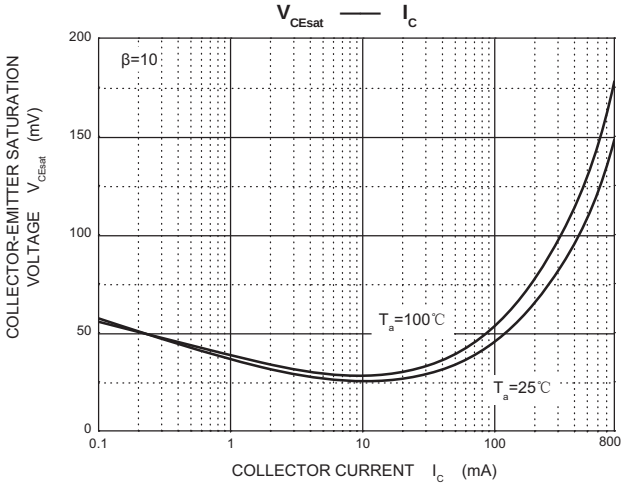
Rank	**O**	**Y**
Range	80-160	120-240

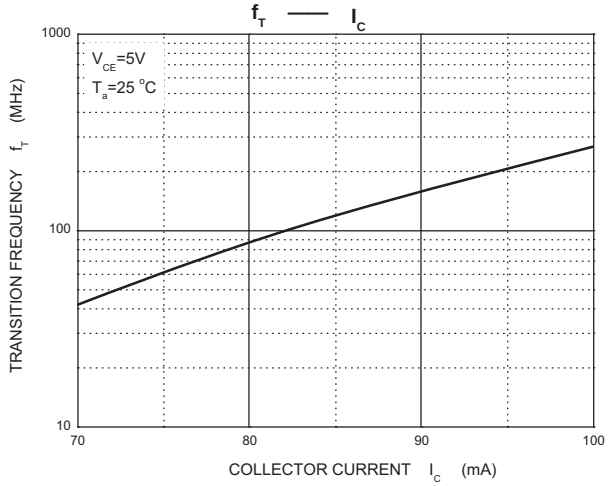
Typical Characteristics

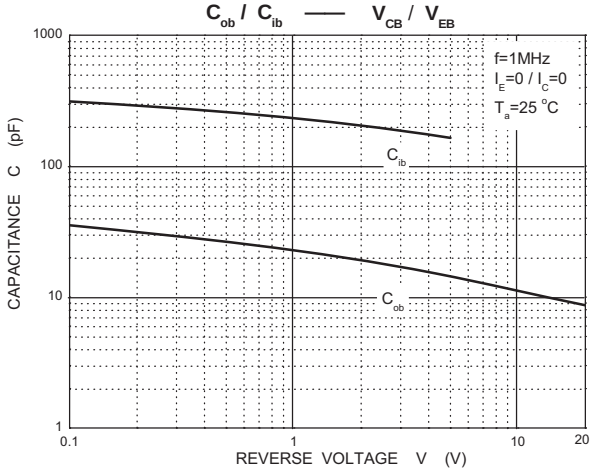


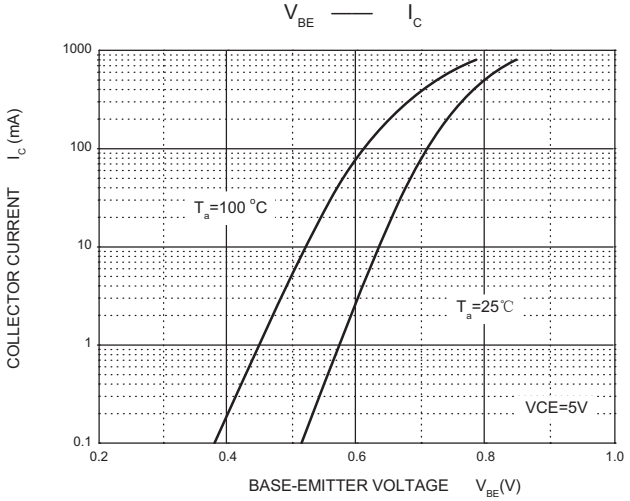


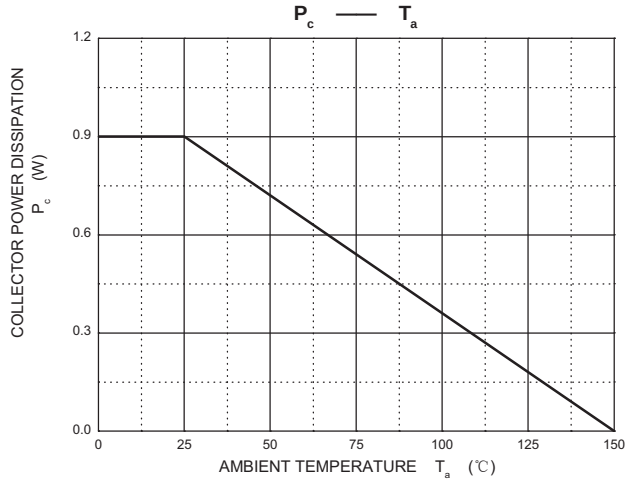




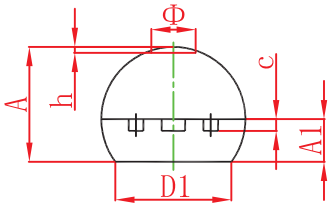


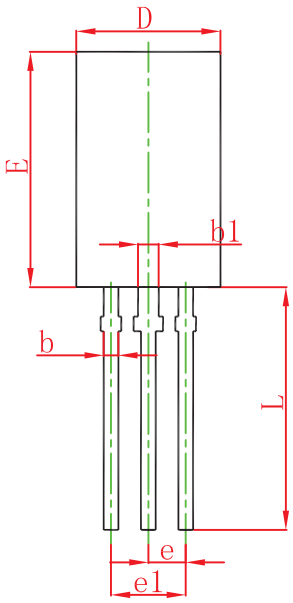






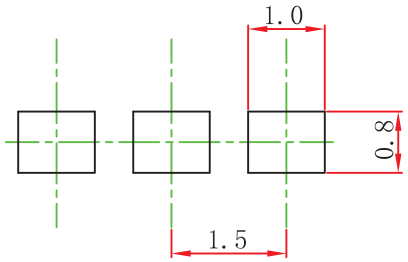
TO-92MOD Package Outline Dimensions





Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.800	5.000	0.189	0.197
A1	1.730	2.030	0.068	0.080
b	0.440	0.600	0.017	0.024
b1	0.940	1.100	0.037	0.043
c	0.350	0.450	0.014	0.018
D	5.900	6.100	0.232	0.240
D1	4.000		0.157	
E	8.500	8.700	0.335	0.343
e	1.500 TYP.		0.059 TYP.	
e1	2.900	3.100	0.114	0.122
L	13.800	14.200	0.543	0.559
Φ		1.600		0.063
h	0.000	0.380	0.000	0.015

TO-92MOD Suggested Pad Layout

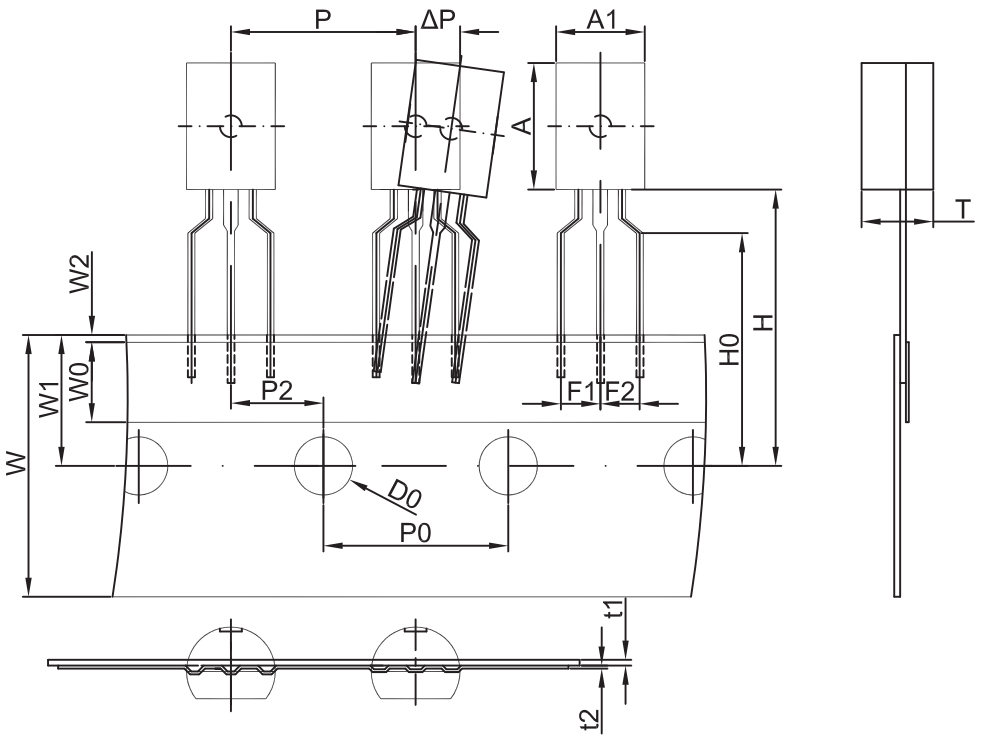


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.05mm.
3.The pad layout is for reference purposes only.

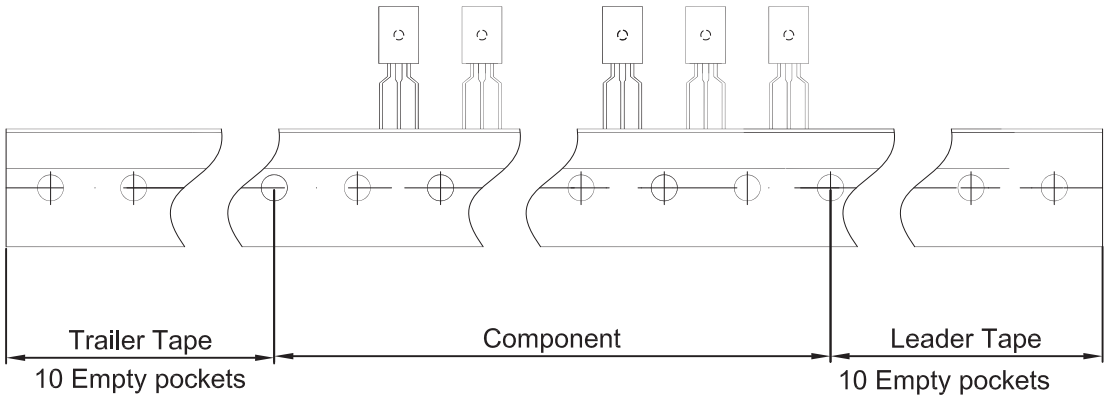
NOTICE

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-92MOD PACKAGE TAPING DIMENSION



Dimiensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
6.0	8.6	4.9	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	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92MOD	2000 pcs	333×245×43	20,000 pcs	573×404×266