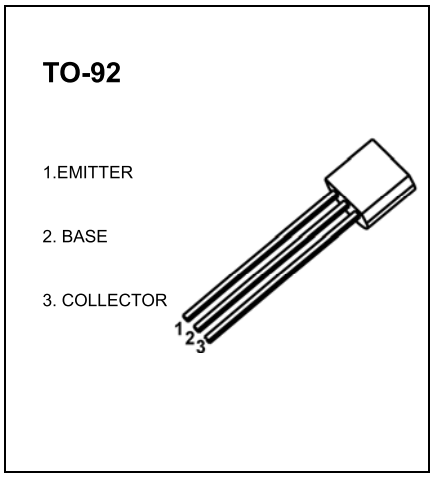
HangZhou DongWo Electronic Technology Co.,Ltd.

TO-92 Plastic-Encapsulate Transistors

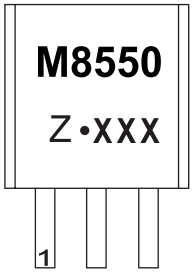
M8550 TRANSISTOR (PNP)



FEATURES

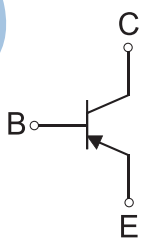
- Power Dissipation

MARKING



M8550=Device code
Solid dot = Green molding compound device, if none, the normal device
XXX=Code

Equivalent Circuit



ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
M8550	TO-92	Bulk	1000pcs/Bag
M8550-TA	TO-92	Tape	2000pcs/Box

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current -Continuous	-800	mA
P_C	Collector Power Dissipation	625	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS

T_a=25℃ unless otherwise specified

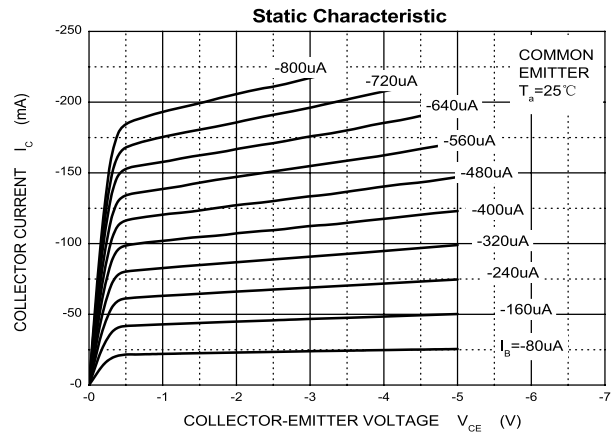
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V(BR)_{CBO}$	I_C= -100μA, I_E=0	-40		V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$*	I_C= -0.1mA , I_B=0	-25		V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E= -100μA, I_C=0	-6		V
Collector cut-off current	I_{CBO}	V_{CB}= -35V , I_E=0		-0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= -20V , I_B=0		-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V, I_C=-5mA	45		
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-100mA	80	400	
	$h_{FE(3)}$	V_{CE}=-1V, I_C=-800mA	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= -800mA, I_B=-80mA		-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-800mA, I_B=-80mA		-1.2	V
Transition frequency	f_T	V_{CE}=-6V, I_C= -20mA f=30MHz	150		MHz

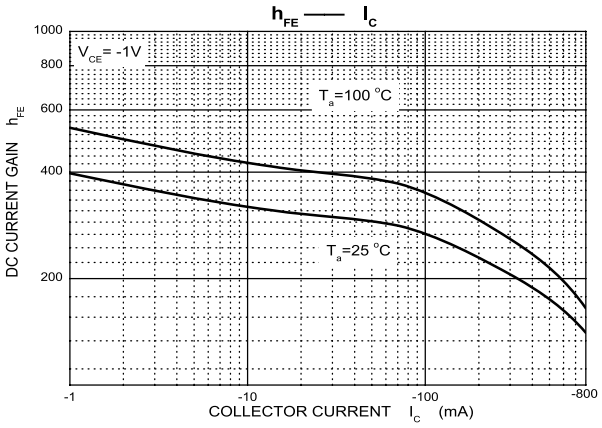
*Pulse Test: pulse width ≤ 300μs,duty cycle ≤2%.

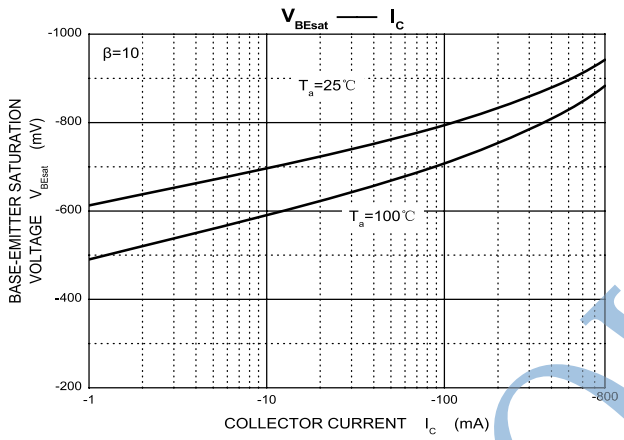
CLASSIFICATION OF $h_{FE(2)}$

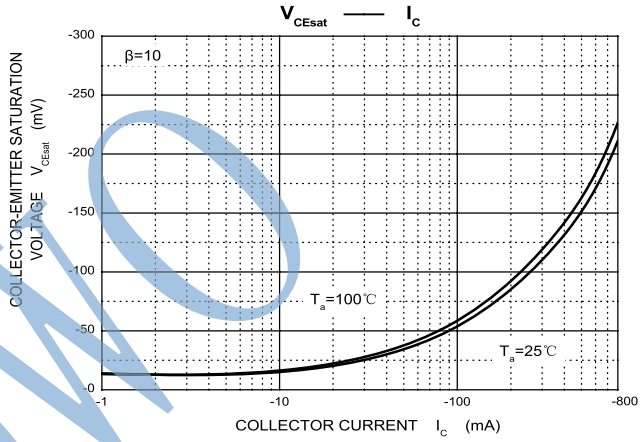
Rank	**B**	**C**	**D**	**D3**
Range	80-160	120-200	160-300	300-400

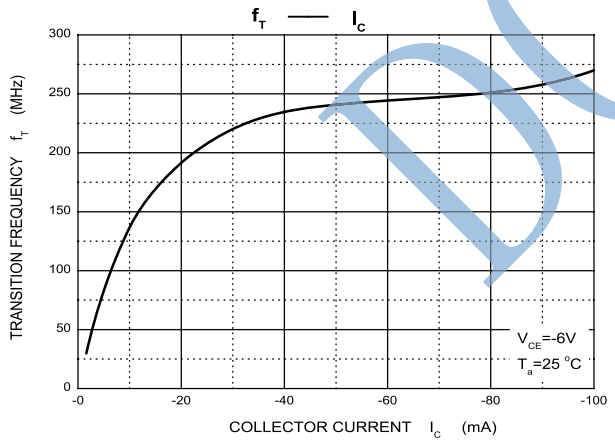
Typical Characteristics M8550

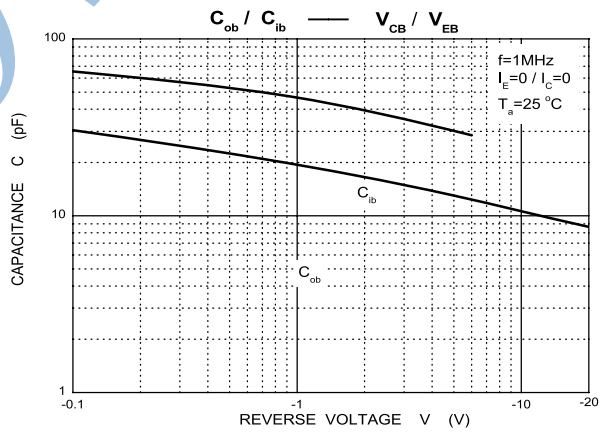


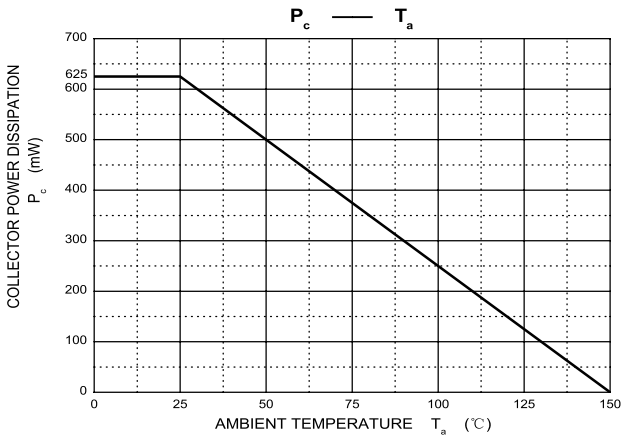




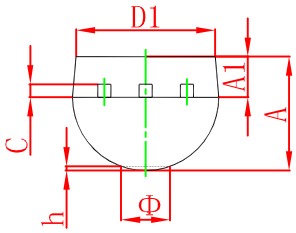


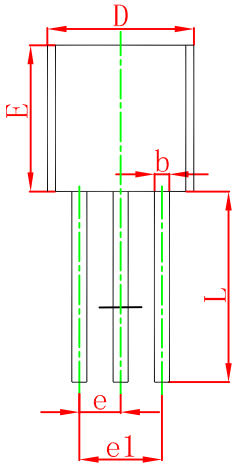






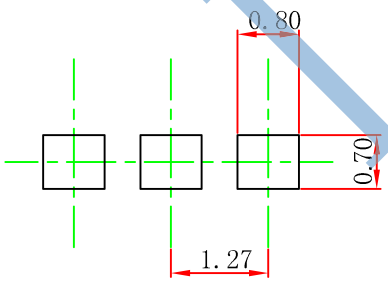
TO-92 Package Outline Dimensions





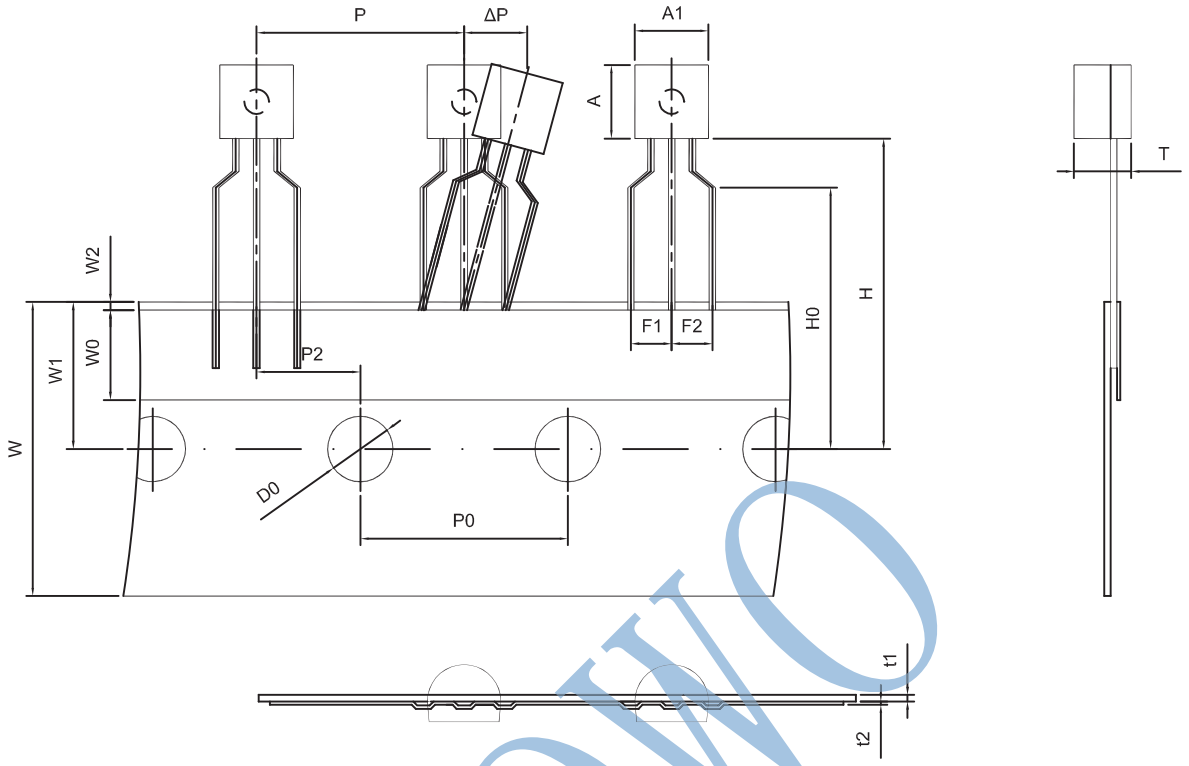
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	3.300	3.700	0.130	0.146
A1	1.100	1.400	0.043	0.055
b	0.380	0.550	0.015	0.022
c	0.360	0.510	0.014	0.020
D	4.300	4.700	0.169	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270 TYP		0.050 TYP	
e1	2.440	2.640	0.096	0.104
L	14.100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

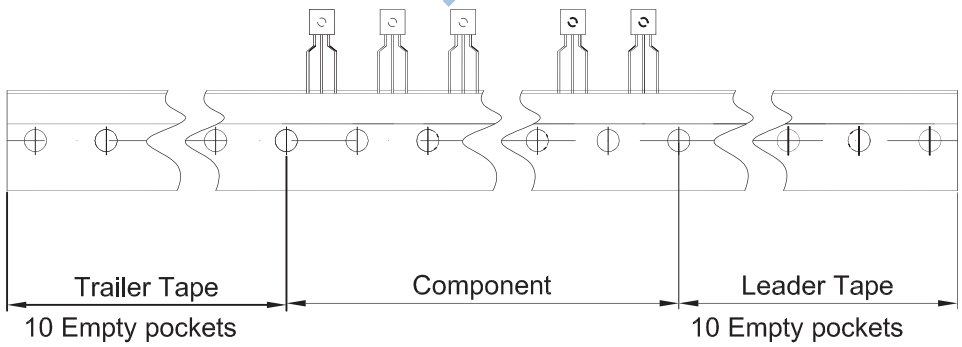


Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

TO-92 PACKAGE TAPEING 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