JIANGSU CHANGJIANG ELECTRONICS TECHNOLOGY CO., LTD

TO-92 Plastic-Encapsulate Transistors

8050SS TRANSISTOR (NPN)

TO—92



1.EMITTER

2. COLLECTOR

3. BASE

1 2 3

FEATURES

Power dissipation

P_{CM} : 1 W (Tamb=25℃)

Collector current

I_{CM}: 1.5 A

Collector-base voltage

$V_{(BR)CBO}$: 40 V

Operating and storage junction temperature range

T_J, T_{stg}: -55℃ to +150℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	I_C= 100 μA , I_E=0	40			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	I_C= 0.1 mA , I_B=0	25			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E= 100 μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}= 40 V , I_E=0			0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= 20 V , I_B=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 5 V , I_C=0			0.1	μA
DC current gain	$h_{FE\ (1)}$	V_{CE}= 1 V , I_C= 100 mA	85		300	
	$h_{FE\ (2)}$	V_{CE}= 1 V , I_C=800 mA	40			
Collector-emitter saturation voltage	V_{CE}(sat)	I_C= 800 mA, I_B= 80 mA			0.5	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C= 800mA, I_B= 80 mA			1.2	V
Transition frequency	f_T	V_{CE}= 10 V, I_C= 50mA f =30 MHz	100			MHz

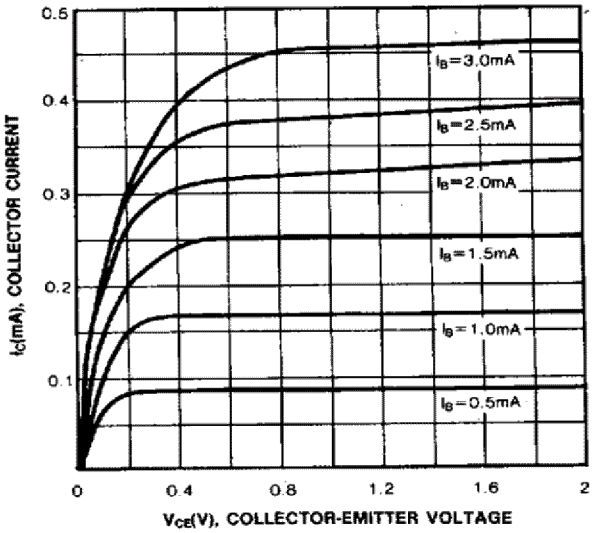
CLASSIFICATION OF $h_{FE(1)}$

Rank	B	C	D
Range	85-160	120-200	160-300

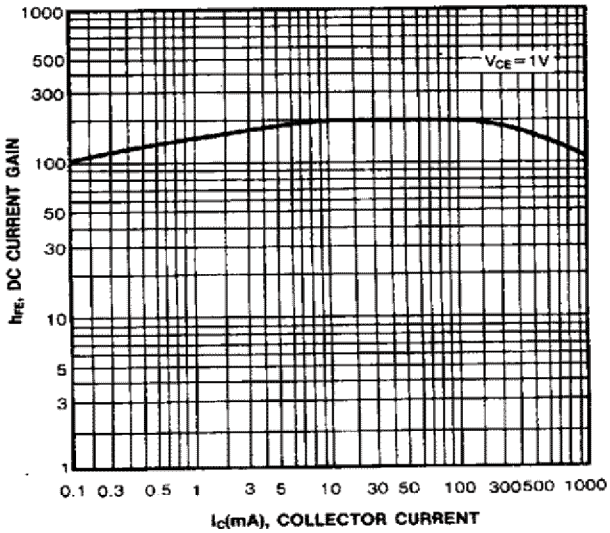
Typical Characteristics

8050SS

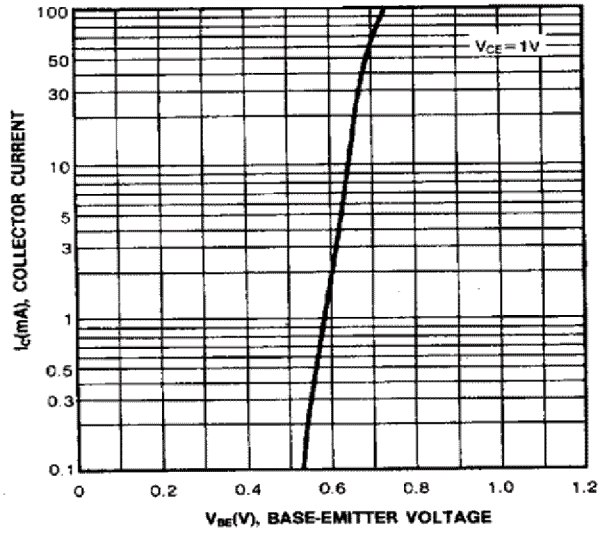
STATIC CHARACTERISTIC



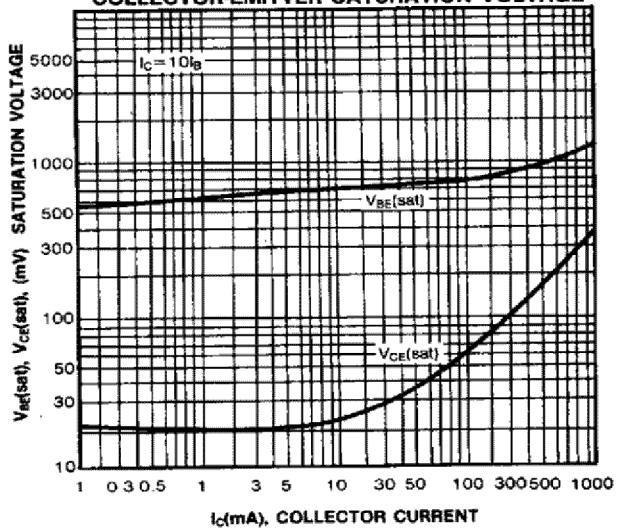
DC CURRENT GAIN



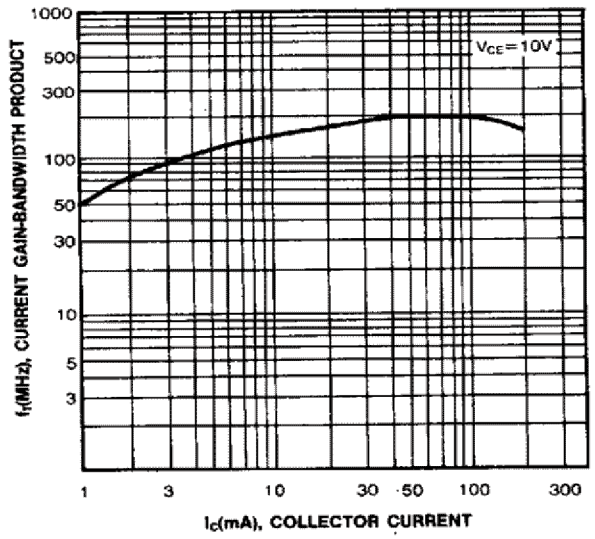
BASE-EMITTER ON VOLTAGE



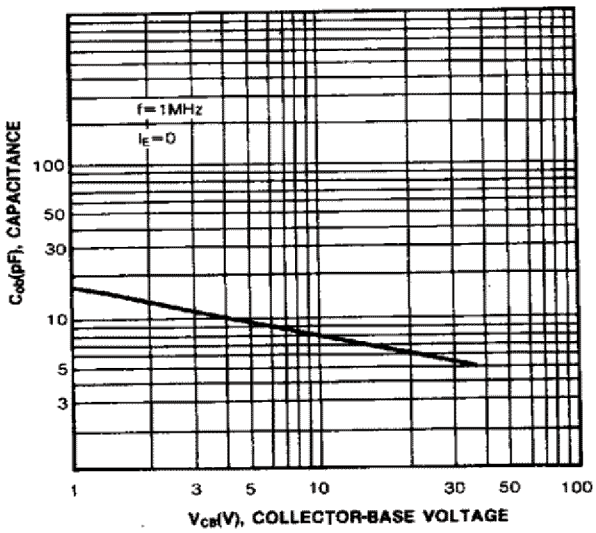
BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



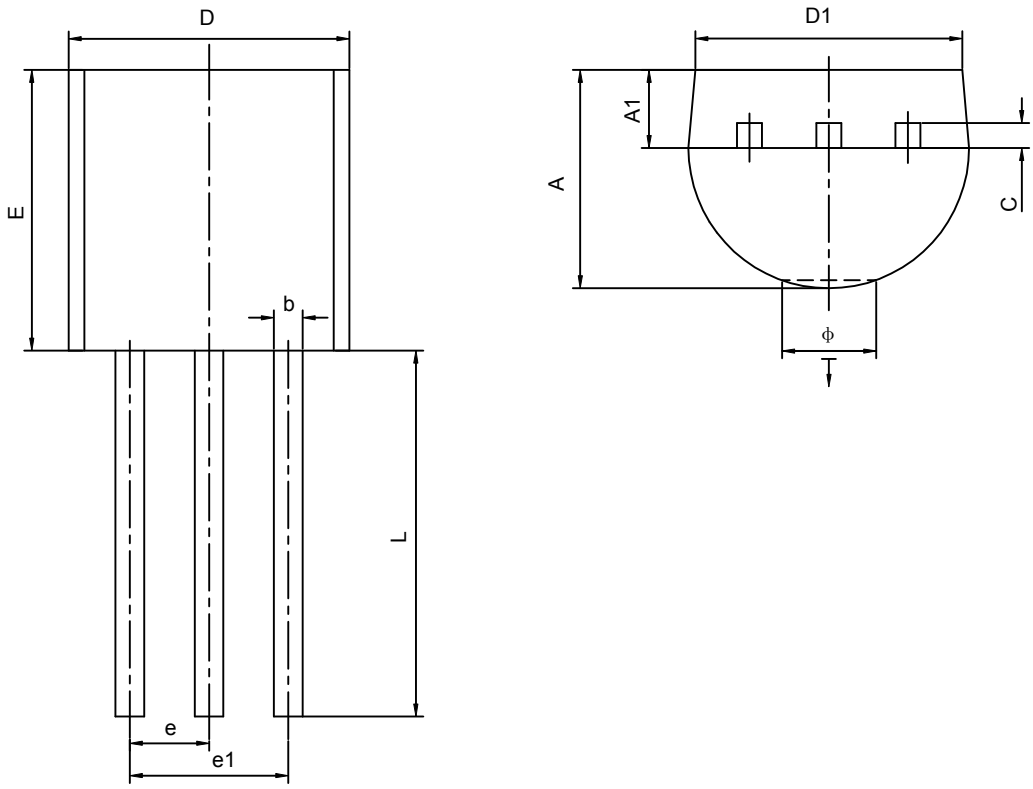
CURRENT GAIN-BANDWIDTH PRODUCT



COLLECTOR OUTPUT CAPACITANCE



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	4.400	4.700	0.173	0.185
D1	3.430		0.135	
E	4.300	4.700	0.169	0.185
e	1.270TYP		0.050TYP	
e1	2.440	2.640	0.096	0.104
L	14.100	14.500	0.555	0.571
Ö		1.600		0.063
⊤	0.000	0.380	0.000	0.015