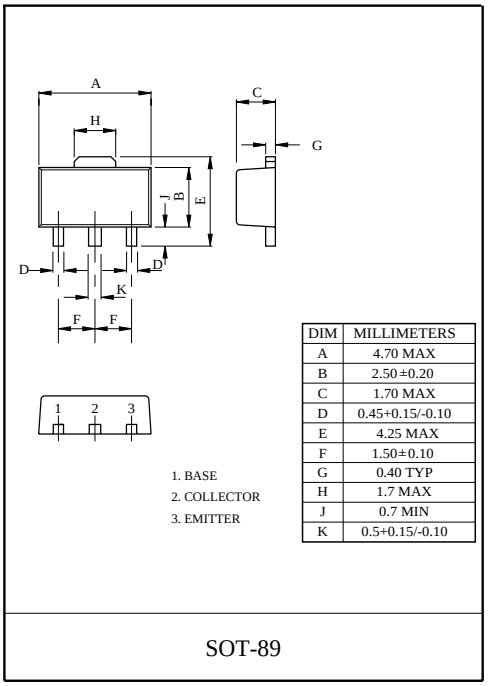
FTB1386 FEATURES

- Excellent DC current gain characteristics
- Low collector saturation voltage
- Complements the FTD2098



DIM	MILLIMETERS
A	4.70 MAX
B	2.50±0.20
C	1.70 MAX
D	0.45+0.15/-0.10
E	4.25 MAX
F	1.50±0.10
G	0.40 TYP
H	1.7 MAX
J	0.7 MIN
K	0.5+0.15/-0.10

SOT-89

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	ContinuousCollector Current	-5	A
I_{CP}*	Pulsed Collector Current	- 10	A
P_C	Collector Power Dissipation	0.5	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

*Single pulse,Pw=10ms

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=-50μA,I_E=0	-30			V
Collector- emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-20			V
Emitter- base breakdown voltage	$V_{(BR)EBO}$	I_E=-50μA,I_C=0	-6			V
Collector cut- off current	I_{CBO}	V_{CB}=-20V,I_E=0			-0.5	μA
Emitter cut- off current	I_{EBO}	V_{EB}=-5V,I_C=0			-0.5	μA
DC current gain	h_{FE}	V_{CE}=-2V,I_C=-500mA	82		390	
Collector- emitter saturation voltage	$V_{CE(sat)}$	I_C=-4A,I_B=-100mA			-1	V
Transition frequency	f_T	V_{CE}=-6V,I_C=-50mA,f=30MHz		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=-20V,I_E=0,f=1MHz		60		pF

CLASSIFIC ATION OF h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	BHP	BHQ	BHR

● Electrical characteristic curves

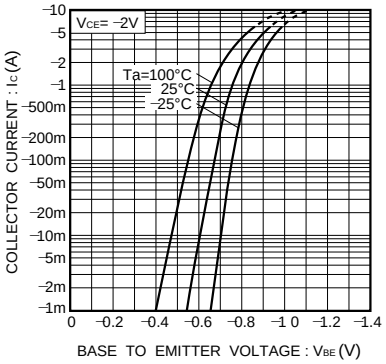


Fig.1 Grounded emitter propagation characteristics

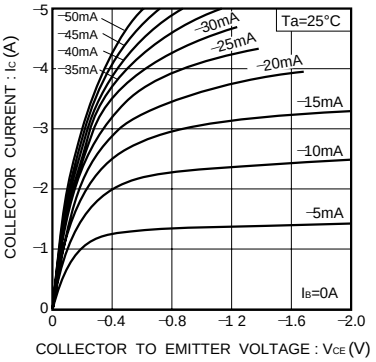


Fig.2 Grounded emitter output characteristics

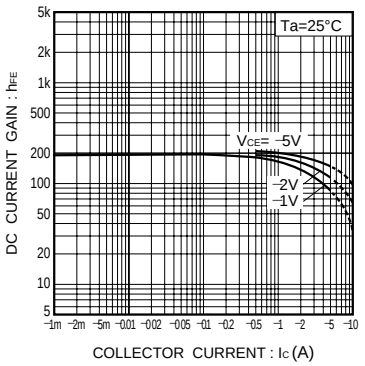


Fig.3 DC current gain vs. collector current (Ⅰ)

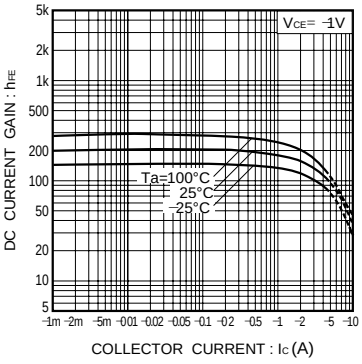


Fig.4 DC current gain vs. collector current (Ⅱ)

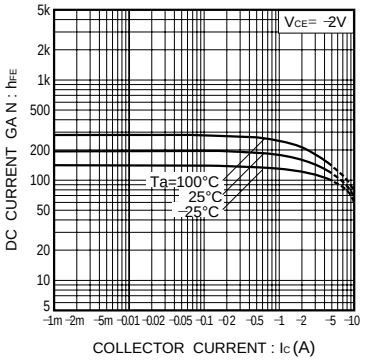


Fig.5 DC current gain vs. collector current (Ⅲ)

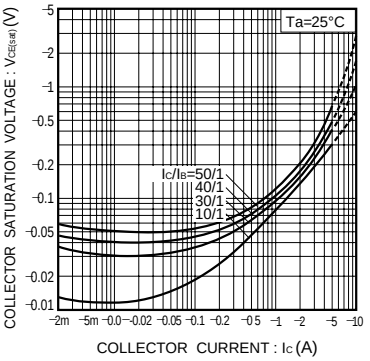


Fig.6 Collector-emitter saturation voltage vs. collector current (Ⅰ)

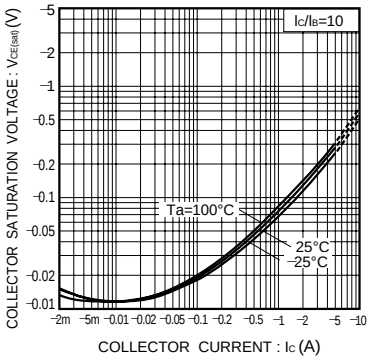


Fig.7 Collector-emitter saturation voltage vs. collector current (Ⅱ)

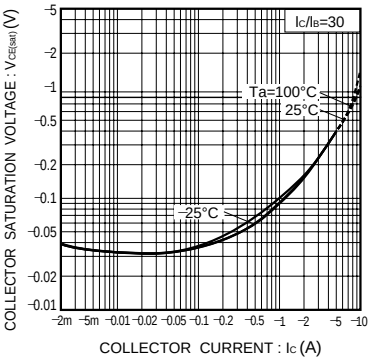


Fig.8 Collector-emitter saturation voltage vs. collector current (Ⅲ)

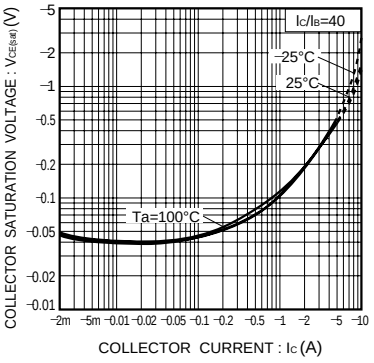


Fig.9 Collector-emitter saturation voltage vs. collector current (Ⅳ)

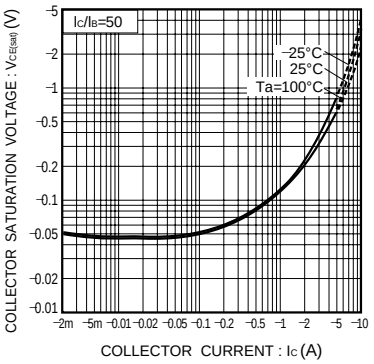


Fig.10 Collector-emitter saturation voltage vs. collector current (V)

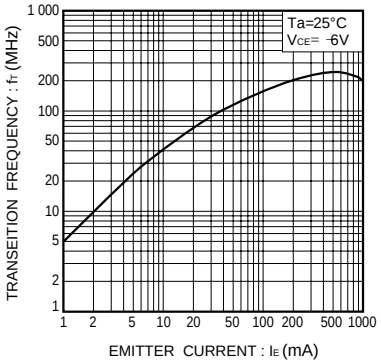


Fig.11 Gain bandwidth product vs. emitter current

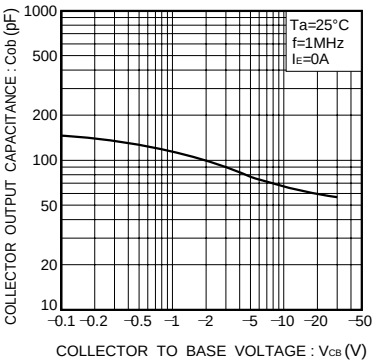


Fig.12 Collector output capacitance vs. collector-base voltage

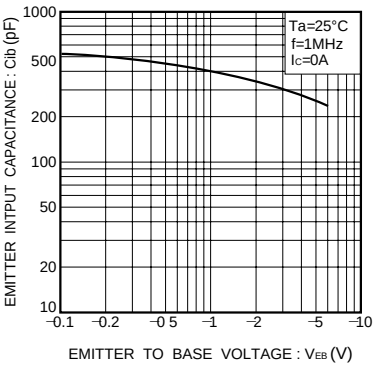


Fig.13 Emitter input capacitance vs. emitter-base voltage