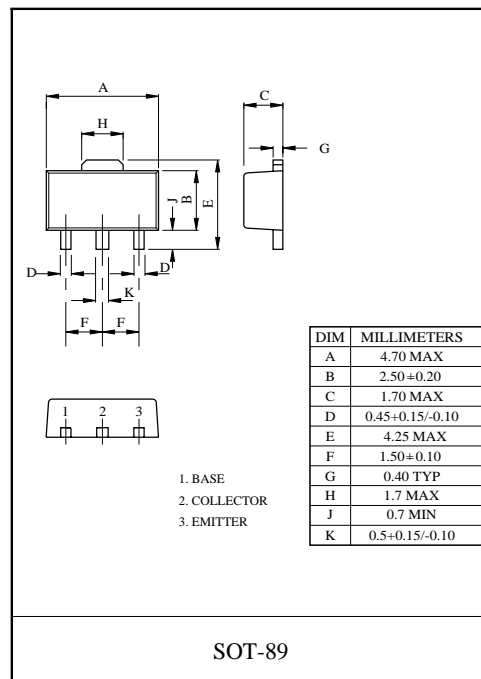


FTD2098 FEATURES

- Excellent DC current gain characteristics
- Complements the FTB1386

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	20	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current -Continuous	5	A
P _C	Collector Power Dissipation	500	mW
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C



ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =50μA, I _E =0	50			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} =40V, 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 =0.5A	120		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=100MHz		150		MHz
Collector output capacitance	C _{ob}	V _{CB} =20V, I _E =0, f=1MHz		30		pF

CLASSIFICATION OF h_{FE}

Rank	Q	R
Range	120-270	180-390
Marking	AHQ	AHR

● Electrical characteristic curves

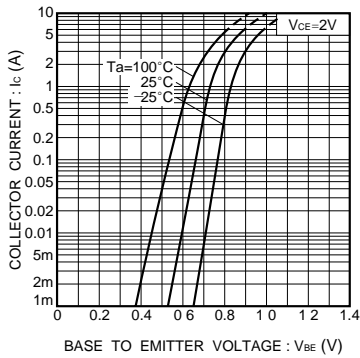


Fig.1 Grounded emitter propagation characteristics

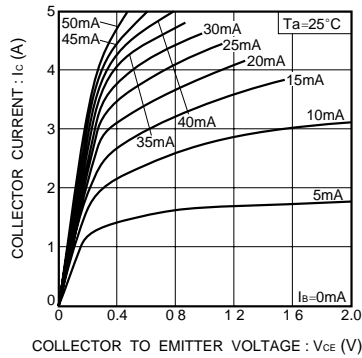


Fig.2 Grounded emitter output characteristics

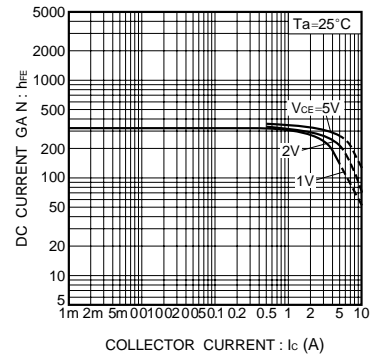


Fig.3 DC current gain vs. collector current (I)

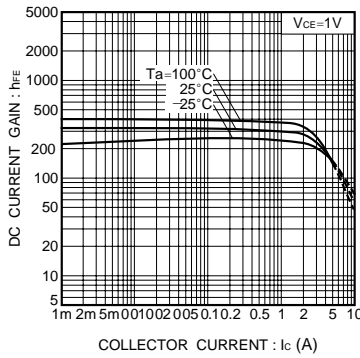


Fig.4 DC current gain vs. collector current (II)

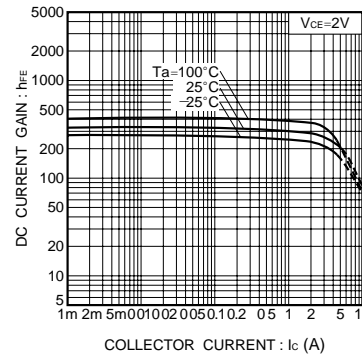


Fig.5 DC current gain vs. collector current (III)

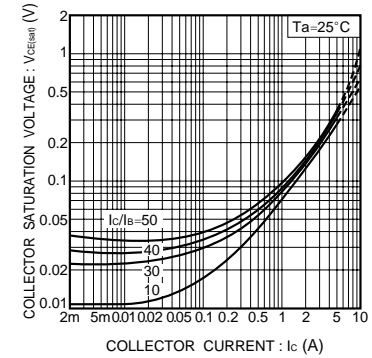


Fig.6 Collector-emitter saturation voltage vs. collector current (I)

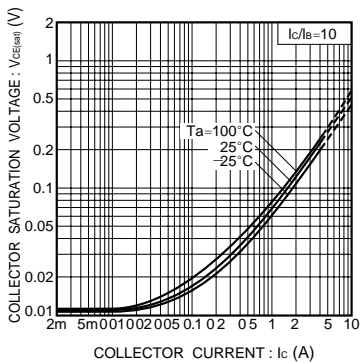


Fig.7 Collector-emitter saturation voltage vs. collector current (II)

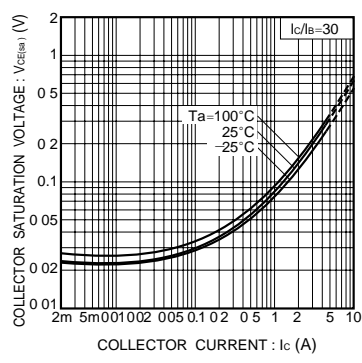


Fig.8 Collector-emitter saturation voltage vs. collector current (III)

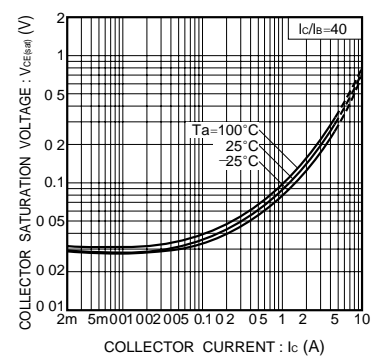


Fig.9 Collector-emitter saturation voltage vs. collector current (IV)

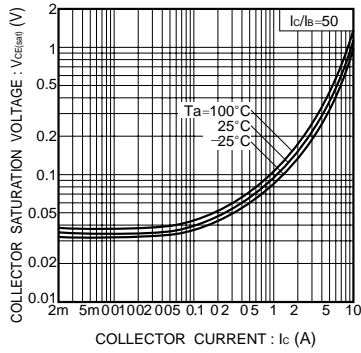


Fig.10 Collector-emitter saturation voltage vs. collector current (V)

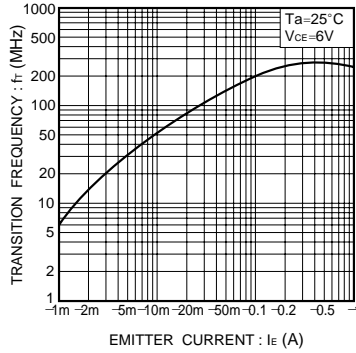


Fig.11 Gain bandwidth product vs. emitter current

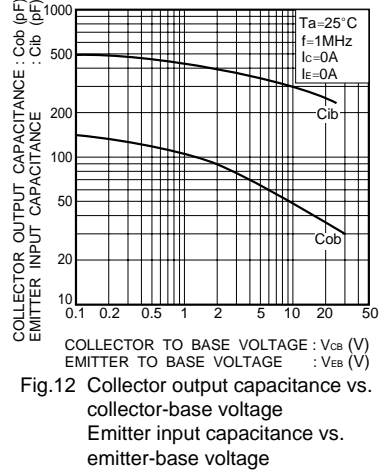


Fig.12 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

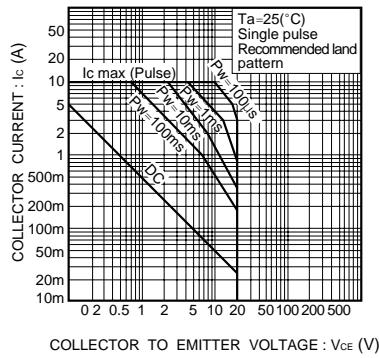


Fig.13 Safe operating area