TO-92 Plastic-Encapsulate Transistors

AV8050 TRANSISTOR（NPN）

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℃

TO—92

1. EMITTER

2. BASE

3.COLLECTOR

1 2 3

ELECTRICAL CHARACTERISTICS（Tamb=25℃ unless otherwise specified）

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	Ic= 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
Base-emitter voltage	V_{BE}	I_E= 1.5A			1.6	V
Transition frequency	f_T	V_{CE}= 10 V, I_C= 50mA f =30 MHz	190			MHz

CLASSIFICATION OF HFE(1)

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

TYPICAL PERFORMANCE CHARACTERISTICS

Fig.1 Static characteristics

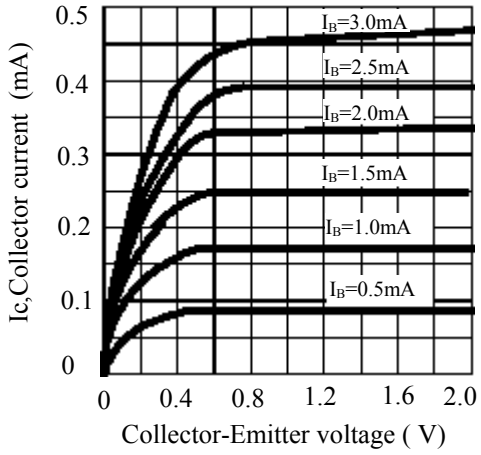

Fig.2 DC current Gain

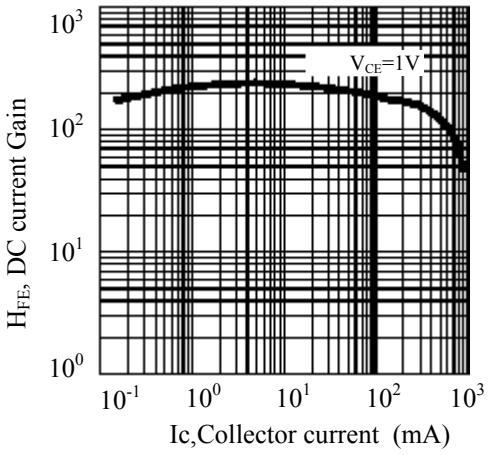

Fig.3 Base-Emitter on Voltage

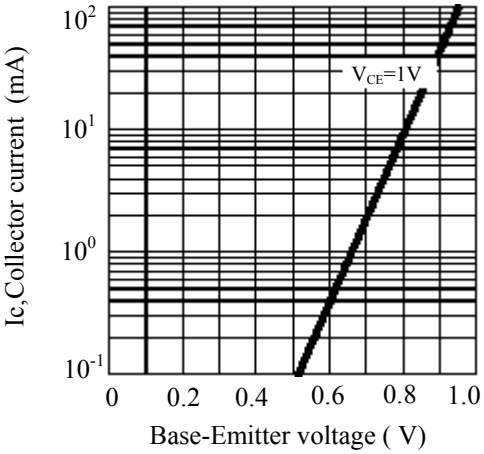

Fig.4 Saturation voltage

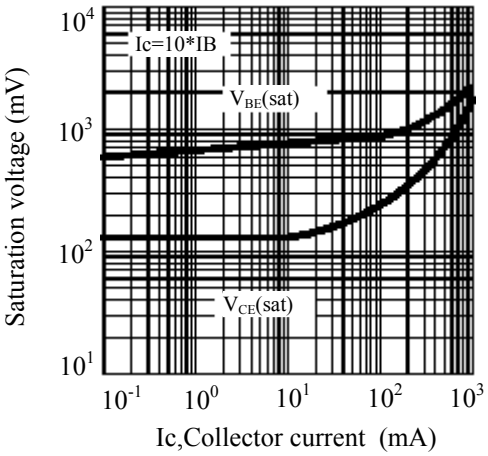

Fig.5 Current gain-bandwidth product

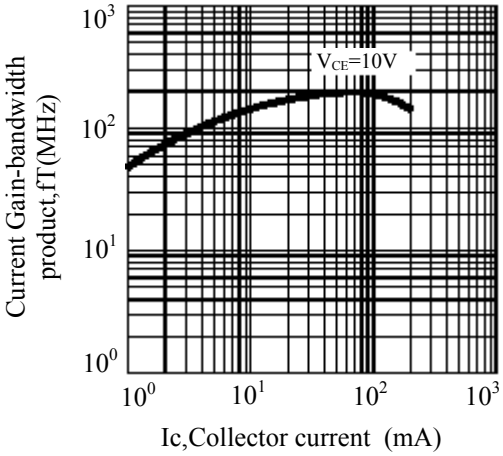

Fig.6 Collector output Capacitance