2SB507 TRANSISTOR (PNP)

TO-220C

1.BASE
2.COLLECTOR
3.EMITTER

FEATURES

- Low Collector-Emitter Saturation Voltage
  Vce(sat)=-1V(MAX)@I_C=-2A,I_B=-0.2A
- DC Current Gain h_{FE}=40~320@IC=-1A
- Complementray to NPN 2SD313

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-3	A
P_C	Collector Power Dissipation	1.75	W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55-150	℃

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=-100μA, I_E=0	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-20V, I_E=0			-100	μA
Collector cut-off current	I_{CEO}	V_{CE}=-60V, I_E=0			-5	mA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V, I_C=0			-1	mA
DC current gain (1)	$h_{FE(1)}$ (1)	V_{CE}=-2V, I_C=-1A	40		320	
	$h_{FE(2)}$ (1)	V_{CE}=-2V, I_C=-0.1A	40			
Collector-emitter saturation voltage(1)	$V_{CE(sat)}$ (1)	I_C=-2A, I_B=-200mA			-1	V
Base-emitter voltage(1)	V_{BE} (1)	V_{CE}=-2V, I_C=-1A			-1.5	V
Transition frequency	f_T	V_{CE}=-5V, I_C=-500mA,f=1MHz	5			MHz

(1)Pulse Test: Pulse Width=300μs,Duty Cycle≤2.0%

CLASSIFICATION OF $h_{FE(1)}$

Rank	C	D	E	F
Range	40-80	60-120	100-200	160-320