M8550 TRANS ISTOR(PNP)

1.BASE
2.COLLECTOR
3.EMITTER

SOT-23-3

FEATURES

Power dissipation

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current	-800	mA
P_C	Collector Power Dissipation	200	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	625	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55～+150	℃

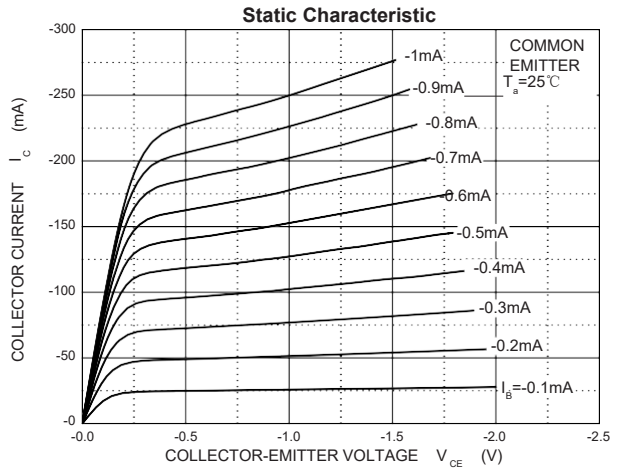
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

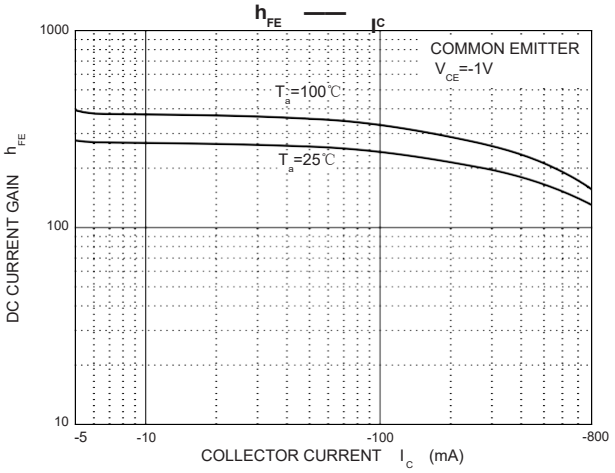
Parameter	Symbol	Test condi tions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= -100μA , I_E=0	-40		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C= -1mA , I_B=0	-25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100μA,I_C=0	-6		V
Collector cut-off current	I_{CBO}	V_{CB}= -35V , I_E=0		-0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= -20V , I_B=0		-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V, I_C=-5mA	45		
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-100mA	85	400	
	$h_{FE(3)}$	V_{CE}=-1V, I_C=-800mA	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= -800mA, I_B=-80mA		-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-800mA, I_B=-80mA		-1.2	V
Transition frequency	f_T	V_{CE}=-6V, I_C= -20mA f=30MHz	150		MHz

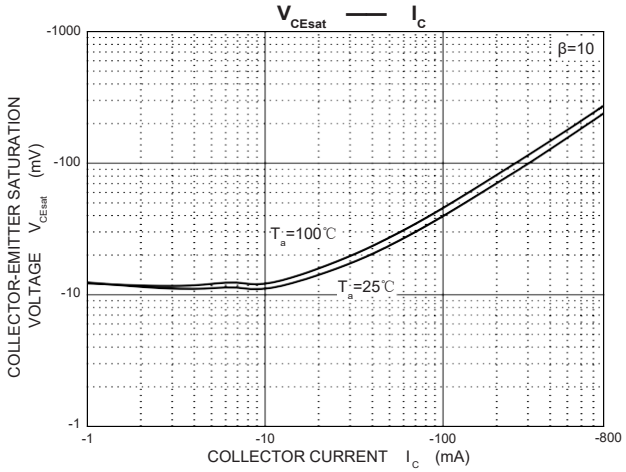
* PulseTest:pulse width ≤ 300μs , duty cycle ≤2%.

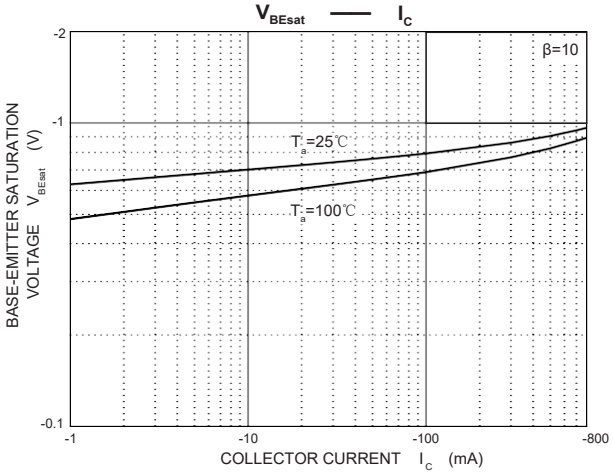
CLASSIFICATION OF $h_{FE(2)}$

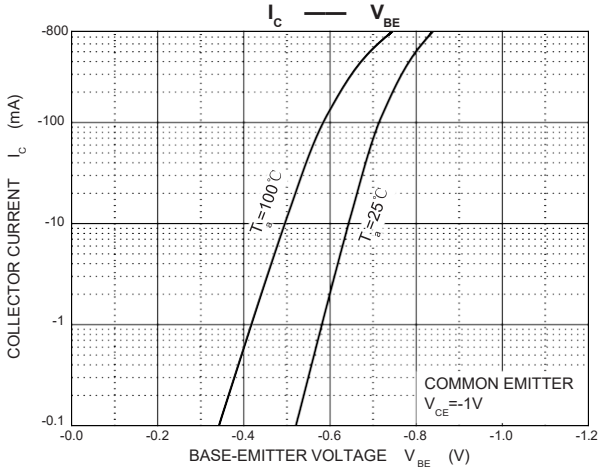
Rank	L	H
Range	85-300	300-400

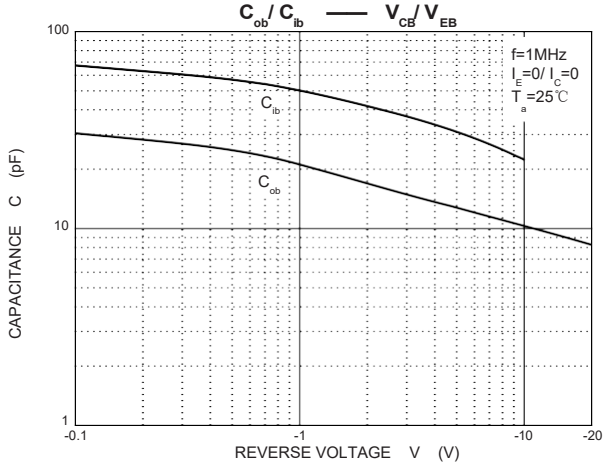

Static Characteristic
COMMON EMITTER
T_a=25℃
-1mA
-0.9mA
-0.8mA
-0.7mA
-0.6mA
-0.5mA
-0.4mA
-0.3mA
-0.2mA
I_B=-0.1mA
COLLECTOR CURRENT I_C (mA)
COLLECTOR-EMITTER VOLTAGE V_CE (V)

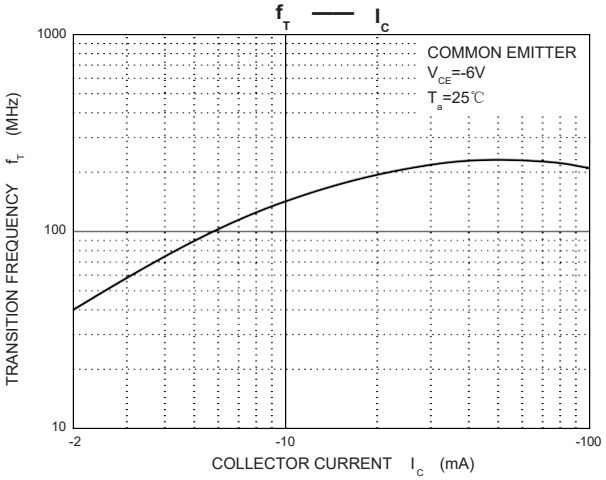

h_FE — I_C
COMMON EMITTER
V_CE=-1V
T_a=100℃
T_a=25℃
DC CURRENT GAIN h_FE
COLLECTOR CURRENT I_C (mA)

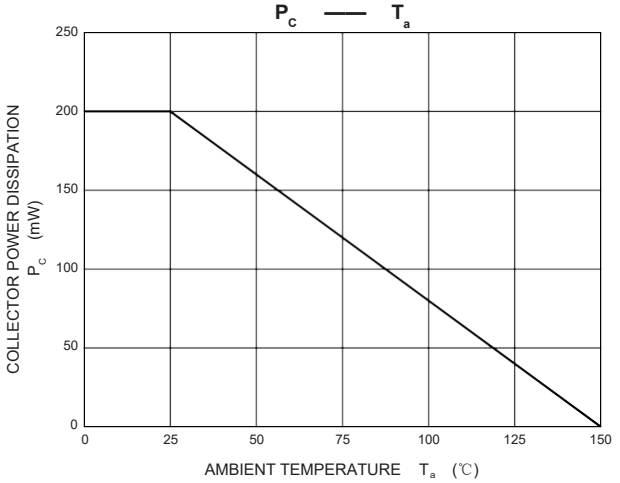

V_CEsat — I_C
β=10
T_a=100℃
T_a=25℃
COLLECTOR-EMITTER SATURATION VOLTAGE V_CEsat (mV)
COLLECTOR CURRENT I_C (mA)


V_BEsat — I_C
β=10
T_a=25℃
T_a=100℃
BASE-EMITTER SATURATION VOLTAGE V_BEsat (V)
COLLECTOR CURRENT I_C (mA)


I_C — V_BE
T_a=100℃
T_a=25℃
COMMON EMITTER
V_CE=-1V
COLLECTOR CURRENT I_C (mA)
BASE-EMITTER VOLTAGE V_BE (V)


C_ob / C_ib — V_CB / V_EB
f=1MHz
I_E=0/ I_C=0
T_a=25℃
C_ib
C_ob
CAPACITANCE C (pF)
REVERSE VOLTAGE V (V)


f_T — I_C
COMMON EMITTER
V_CE=-6V
T_a=25℃
TRANSITION FREQUENCY f_T (MHz)
COLLECTOR CURRENT I_C (mA)


P_C — T_a
COLLECTOR POWER DISSIPATION P_C (mW)
AMBIENT TEMPERATURE T_a (℃)