2SA1298 TRANSISTOR (PNP)

1.BASE
2.COLLECTOR
3.EMITTER

SOT-23-3

FEATURES

- Low Frequency Power Amplifier Application
- Power Swithing Applications

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-35	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	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	℃

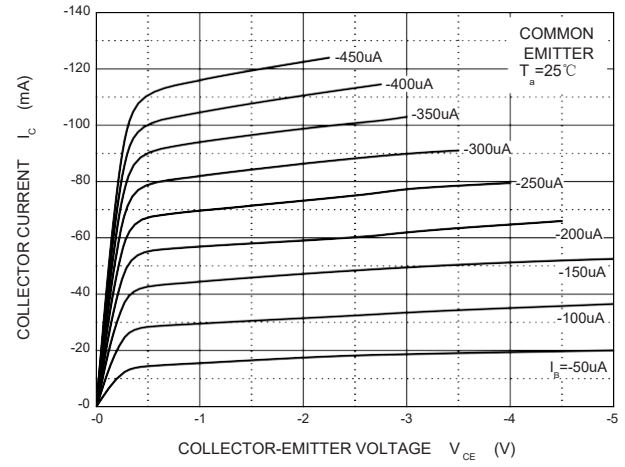
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-1mA, I_E=0	-35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA, I_B=0	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-1mA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-30V, I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0			-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V, I_C=-100mA	100		320	
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-800mA	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA, I_B=-20mA			-0.4	V
Base-emitter voltage	V_{BE}	V_{CE}=-1V,I_C=-10mA,	-0.5		-0.8	V
Transition frequency	f_T	V_{CE}=-5V,I_C=-10mA		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz		13		pF

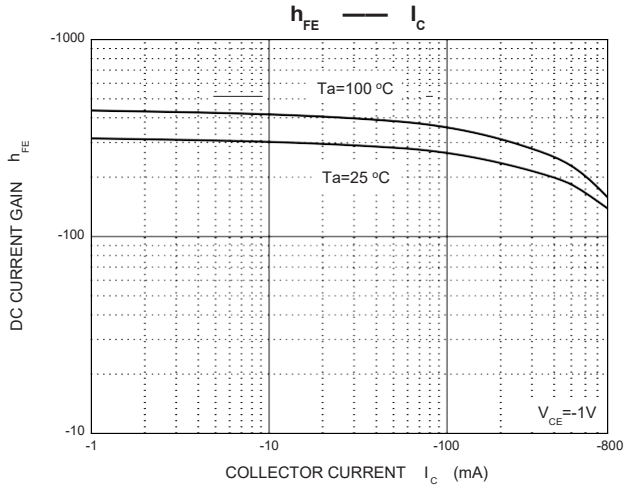
CLASSIFICATION OF $h_{FE(1)}$

RANK	O	Y
RANGE	100－200	160－320
MARKING	IO	IY

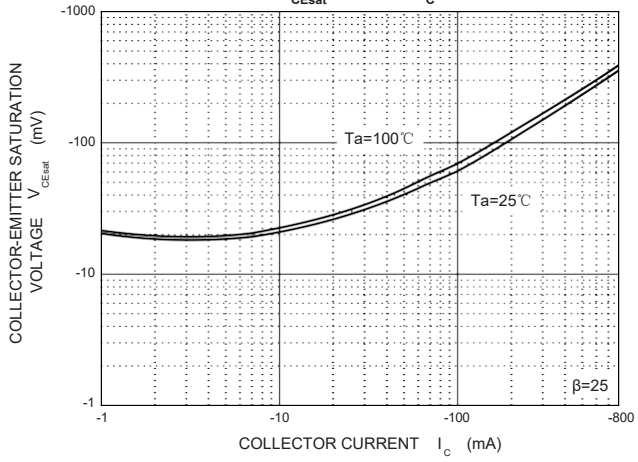
Static Characteristic



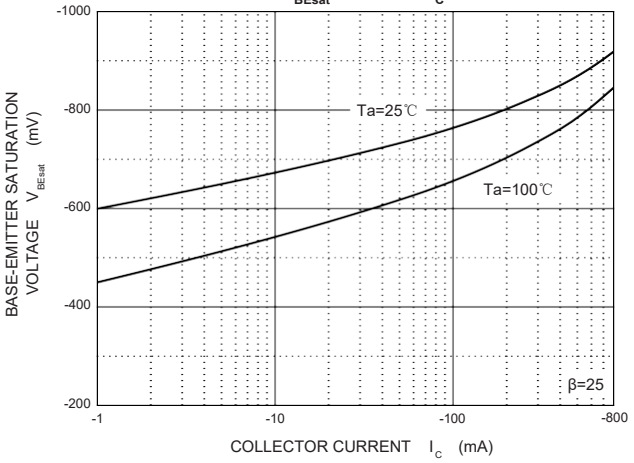
h_{FE} —— I_C



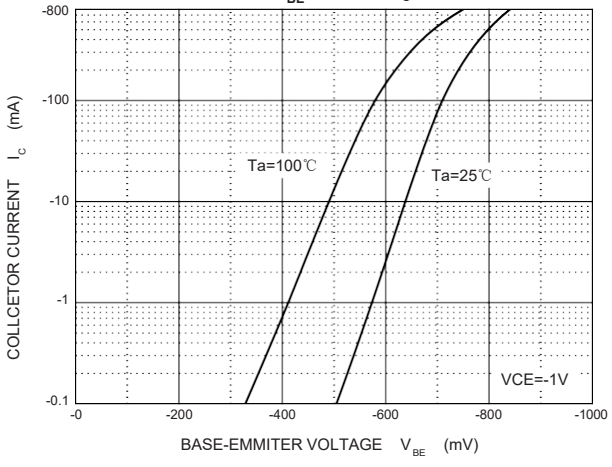
V_{CEsat} —— I_C



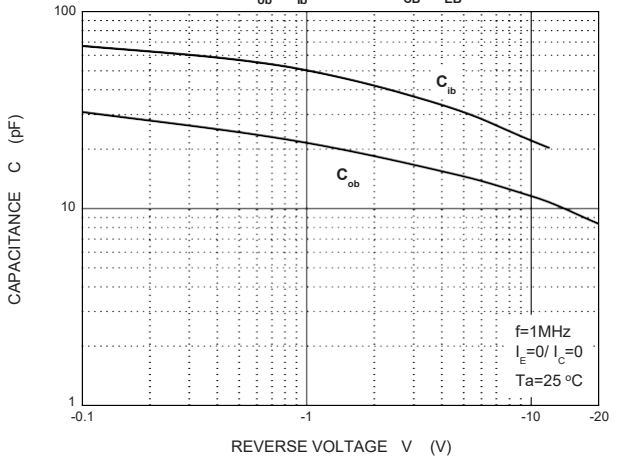
V_{BEsat} —— I_C



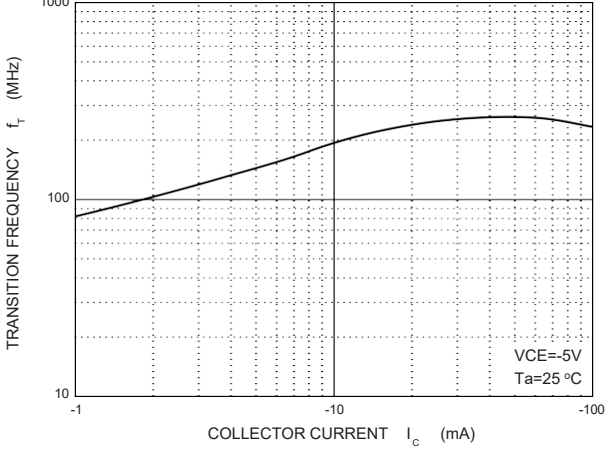
V_{BE} —— I_C



C_{ob} / C_{ib} —— V_{CB} / V_{EB}



f_T —— I_C



P_C —— T_a