TRANSISTOR (PNP)

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR

FEATURES

- **Low frequency power amplifier application**
- **Power switching application**

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
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 –Continuous	-0.8	A
P_{C*}	Collector Dissipation	200	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

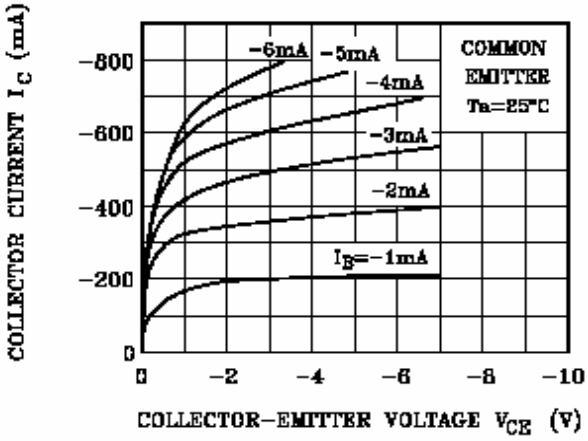
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=- 1mA,I_E=0	-35			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -10mA, I_B=0	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-1mA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-30 V,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 $h_{FE(1)}$

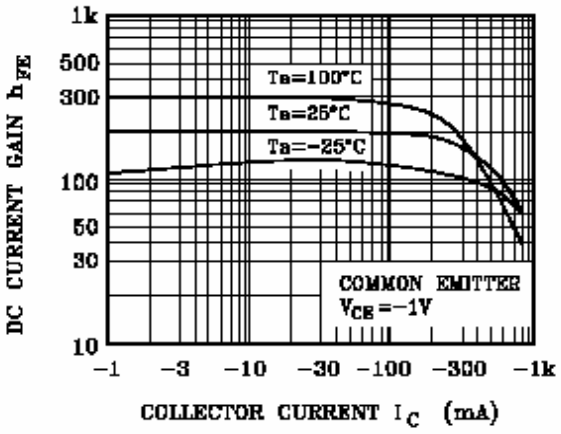
Rank	O	Y
Range	100-200	160-320
MARKING	IO	IY

Typical Characteristics

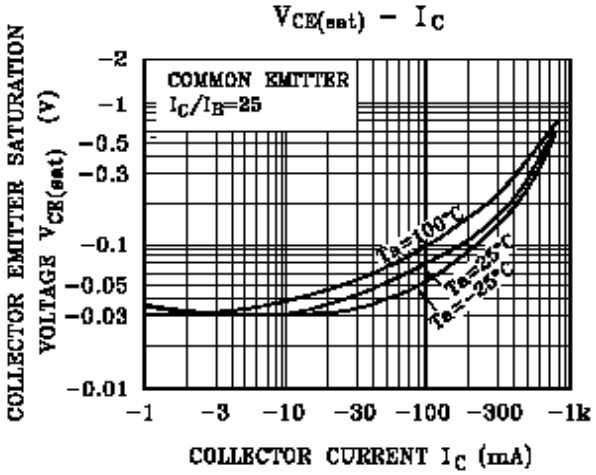
$I_C - V_{CE}$



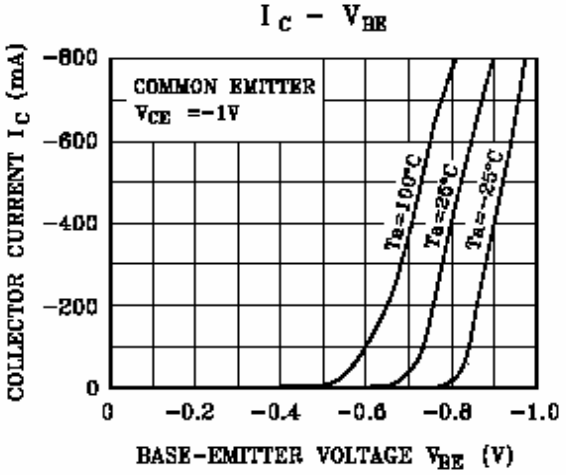
$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



$I_C - V_{BE}$



$P_C - T_a$