TRANSISTOR (PNP)

SOT-23

1. BASE
2. EMITTER
3. COLLECTOR

FEATURES

Low equivalent on-resistance

Marking :591

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

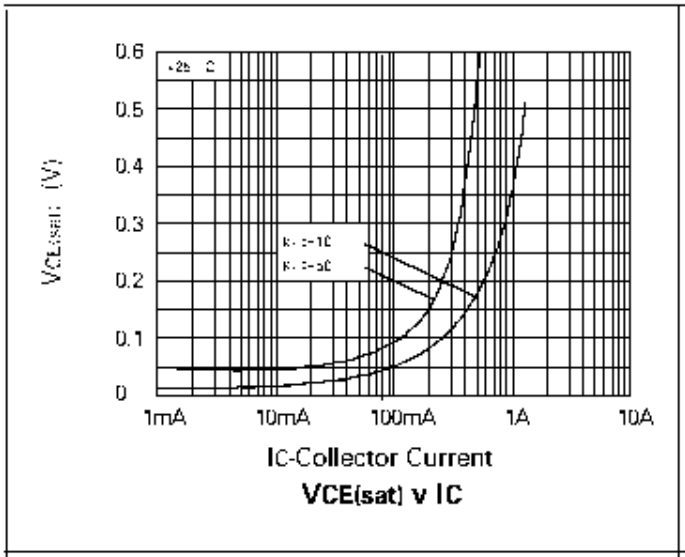
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1	A
P_C	Collector Power Dissipation	500	mW
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

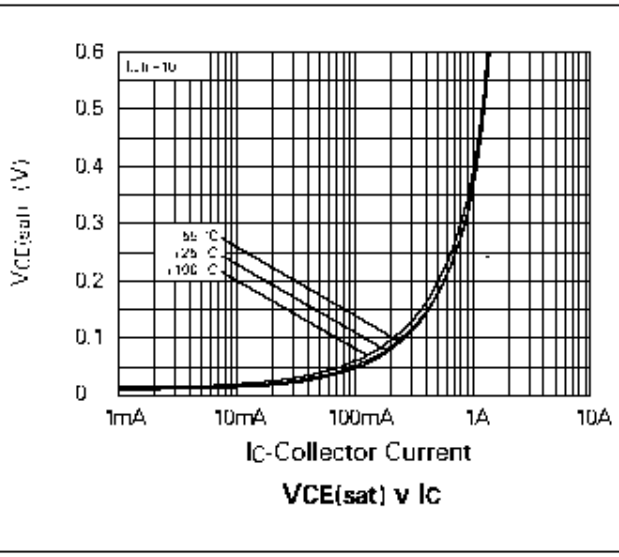
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA, I_E=0	-80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$[1]	I_C=-10mA, I_B=0	-60			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-60V, I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V, I_C=0			-0.1	μA
DC current gain	$h_{FE(1)}$	V_{CE}=-5V, I_C=-1mA	100			
	$h_{FE(2)}$[1]	V_{CE}=-5V, I_C=-500mA	100		300	
	$h_{FE(3)}$[1]	V_{CE}=-5V, I_C=-1A	80			
	$h_{FE(4)}$[1]	V_{CE}=-5V, I_C=-2A	15			
Collector-emitter saturation voltage	$V_{CE(sat)1}$[1]	I_C=-500mA, I_B=-50mA			-0.3	V
	$V_{CE(sat)2}$[1]	I_C=-1A, I_B=-100mA			-0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$[1]	I_C=-1A, I_B=-100mA			-1.2	V
Base-emitter voltage	V_{BE}[1]	V_{CE}=-5V, I_C=-1A			-1	V
Transition frequency	f_T	V_{CE}=-10V,I_C=-50mA,,f=100MHz	150			MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V,f=1MHz			10	pF

[1]**Measured under pulsed conditions, Pulse width=300μs, Duty cycle≤2%.**

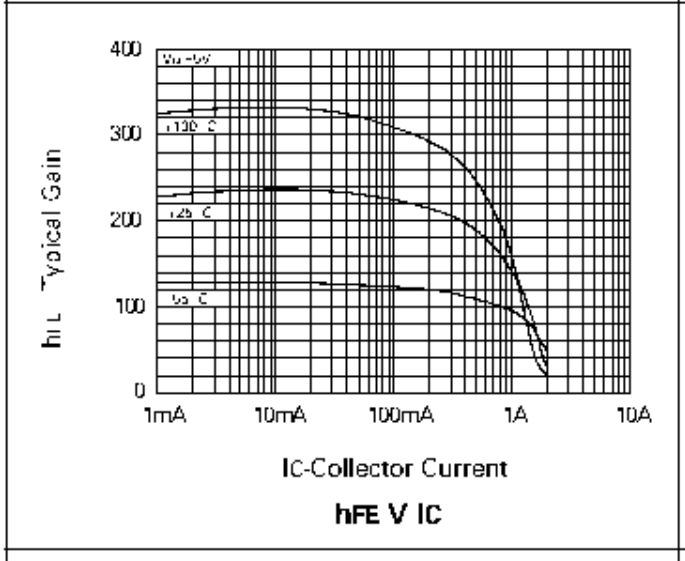
Typical characteristics



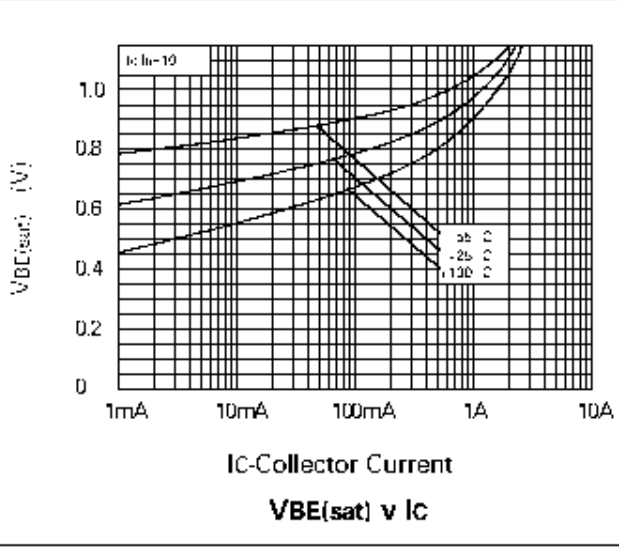
VCE(sat) v IC



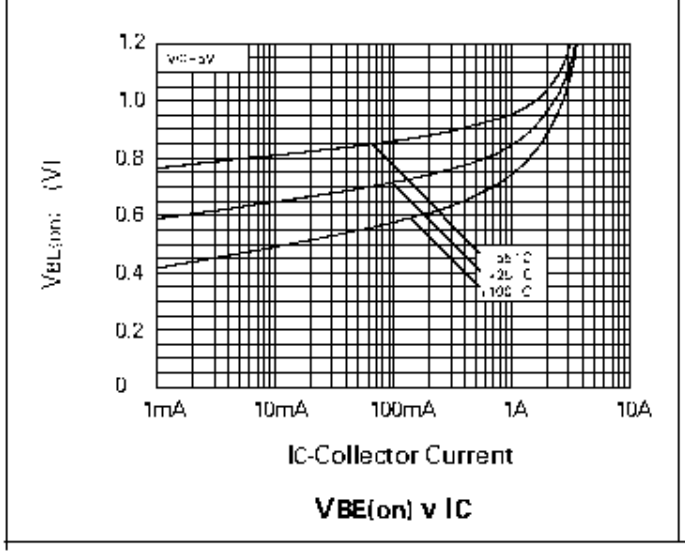
VCE(sat) v IC



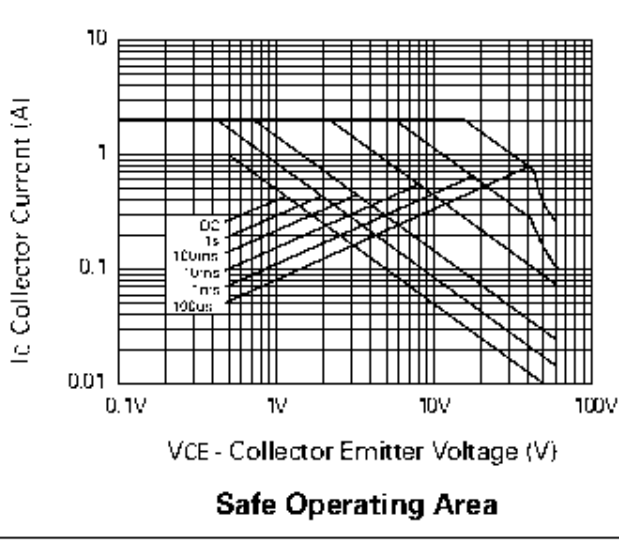
hFE V IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area