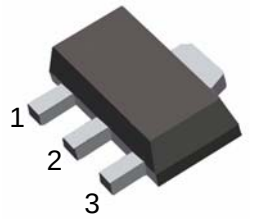
TRANSISTOR (PNP)

SOT-89

1. BASE
2. COLLECTOR
3. EMITTER



FEATURES

Power dissipation

MARKING:P1

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

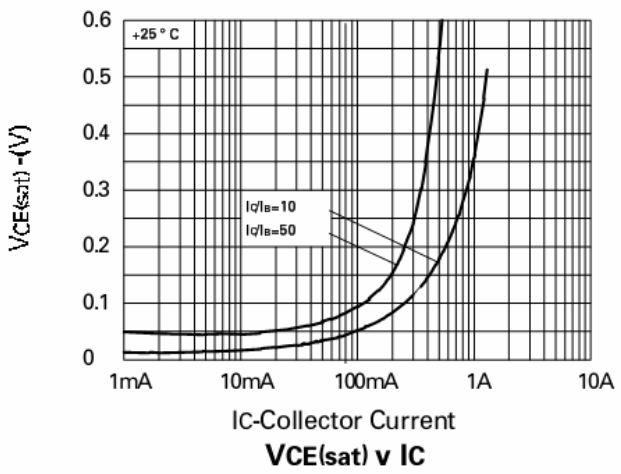
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-80	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current –Continuous	-1	A
P_C	Collector Power Dissipation	0.5	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

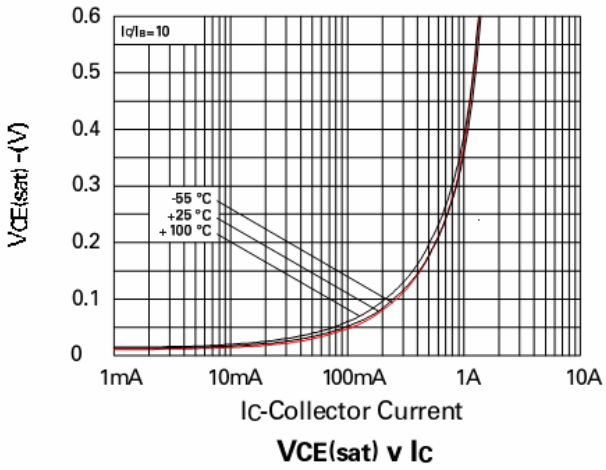
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA , I_E=0	-80		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C= -10mA , I_B=0	-60		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5		V
Collector cut-off current	I_{CBO}	V_{CB}=-60 V , I_E=0		-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-4 V , I_C=0		-0.1	μA
Collector- Emitter cut-off current	I_{CES}	V_{CES}=-60 V, I_E=0		-0.1	μA
DC current gain	h_{FE}*	V_{CE}=-5V, I_C= -1mA V_{CE}=-5V, I_C= -500mA V_{CE}=-5V, I_C= -1A V_{CE}=-5V, I_C= -2A	100 100 80 15	300	
Collector-emitter saturation voltage	$V_{CE(sat)}$ *	I_C=-500 mA, I_B= -50mA I_C=-1A, I_B= -100mA		-0.3 -0.6	V
Base-emitter saturation voltage	$V_{BE(sat)}$ *	I_C=-1A, I_B= -100mA		-1.2	V
Base-emitter voltage	V_{BE}*	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

*Pulse width=300s. Duty cycle 2%

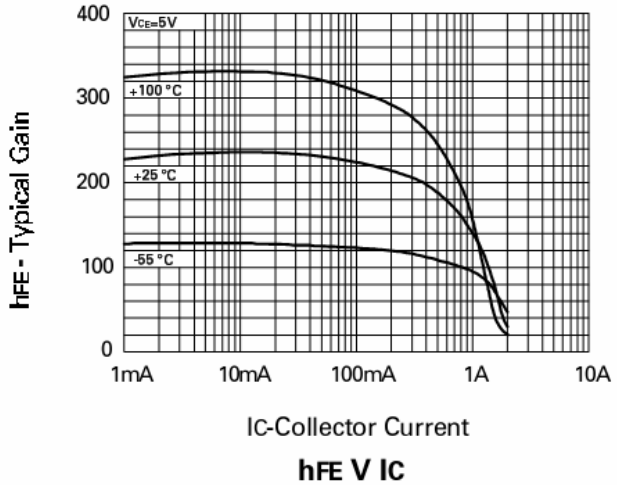
Typical Characteristics



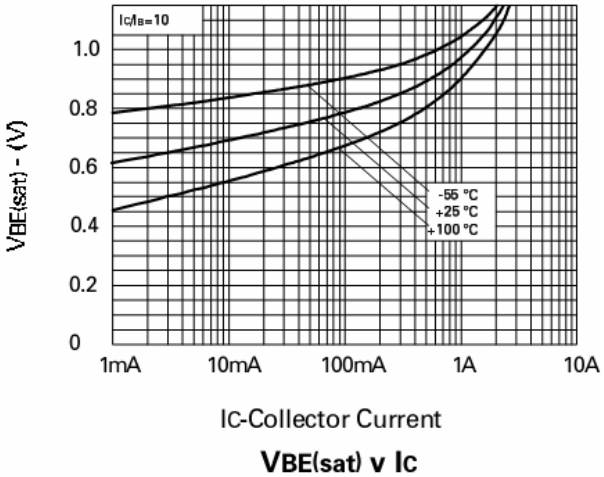
VCE(sat) v IC



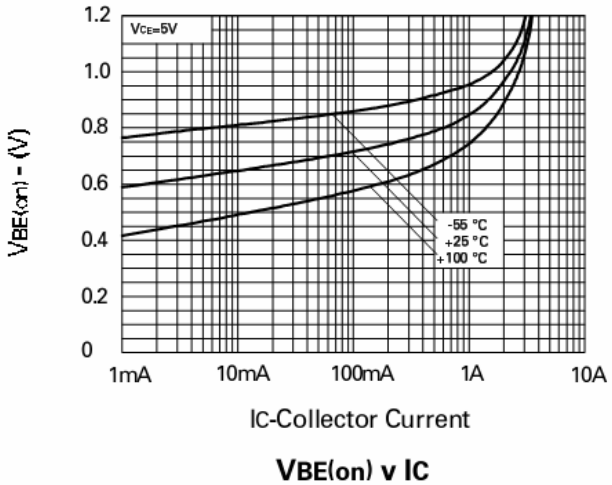
VCE(sat) v IC



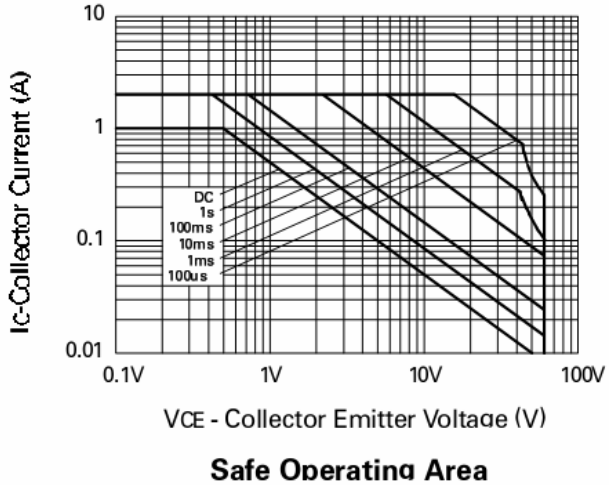
hFE V IC



VBE(sat) v IC



VBE(on) v IC



Safe Operating Area