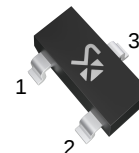


NPN Silicon Epitaxial Planar Transistor

Features

- High DC current gain: $h_{FE} = 200 \text{ TYP}$ ($V_{CE0} = 50 \text{ V}$, $I_C = 100 \text{ mA}$) High Voltage: $V_{CE0} = 50 \text{ V}$

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	100	mA
P_C	Collector Power Dissipation	200	mW
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_{amb} = 25^\circ\text{C}$ unless otherwise specified)

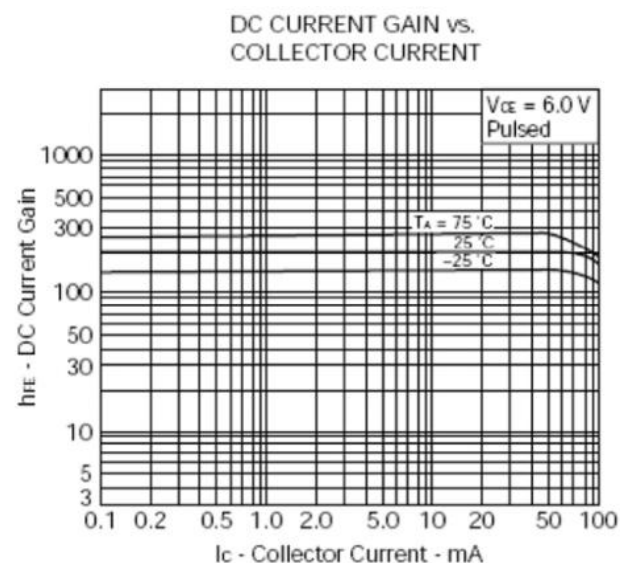
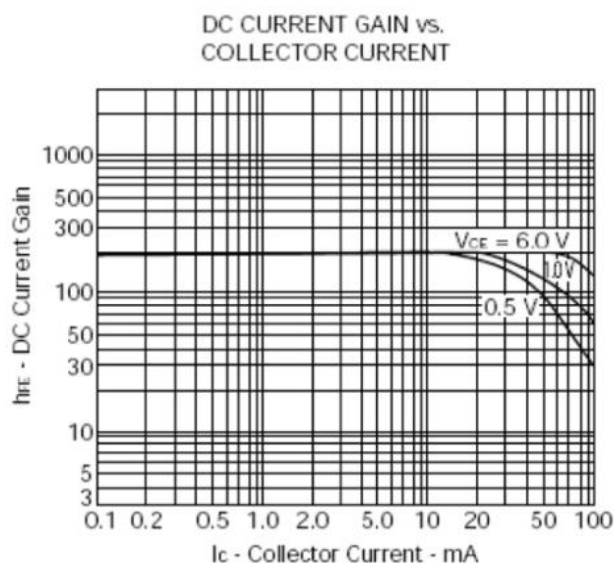
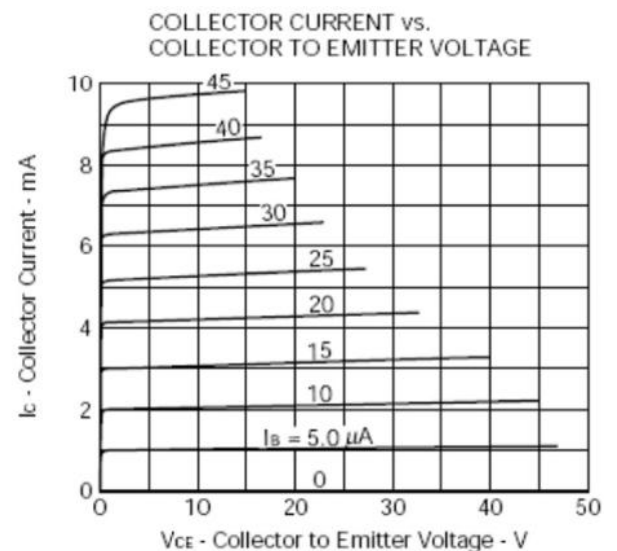
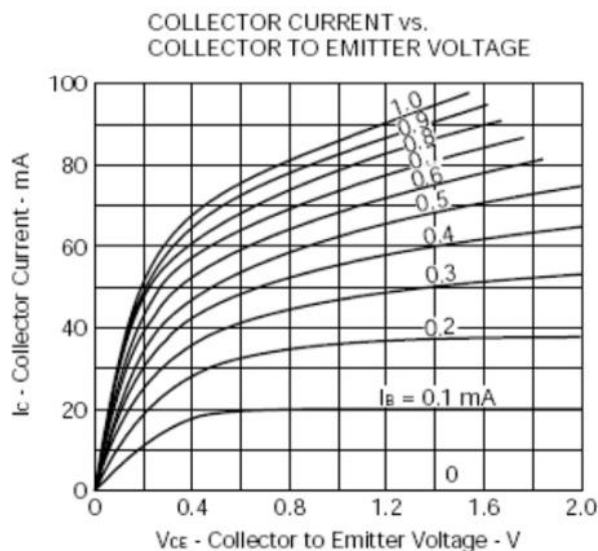
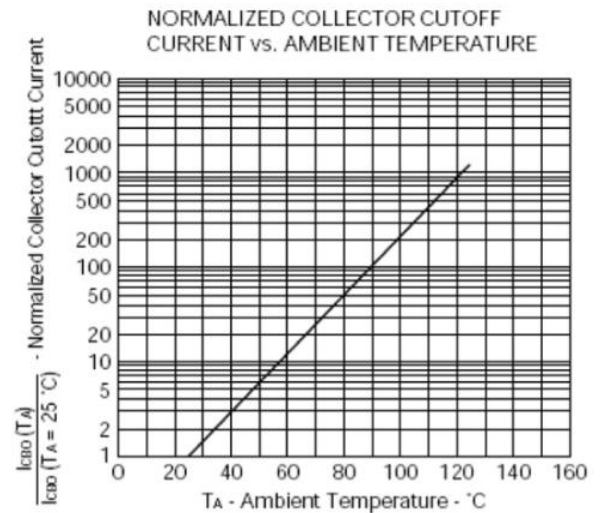
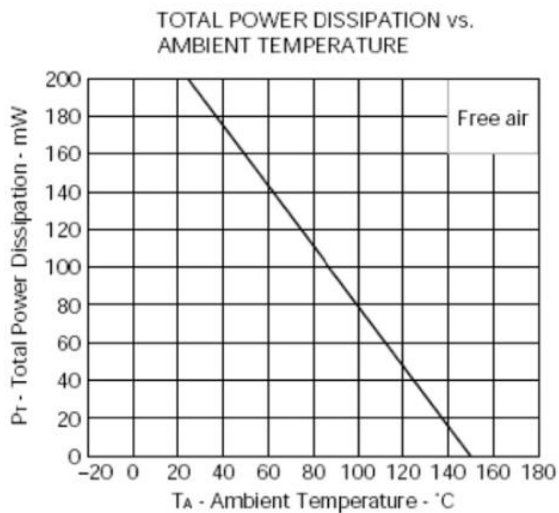
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100 \mu\text{A}$, $I_E = 0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 \text{ mA}$, $I_B = 0$	50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100 \mu\text{A}$, $I_C = 0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB} = 60 \text{ V}$, $I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5 \text{ V}$, $I_C = 0$			0.1	nA
DC current gain	h_{FE}	$V_{CE} = 6 \text{ V}$, $I_C = 1 \text{ mA}$	90	200	600	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100 \text{ mA}$, $I_B = 10 \text{ mA}$			0.3	V
Transition frequency	f_T	$V_{CE} = 6 \text{ V}$, $I_C = 10 \text{ mA}$		250		MHz

CLASSIFICATION OF $h_{FE(1)}$

Rank	L4	L5	L6	L7
Range	90-180	135-270	200-400	300-600
Marking	L4	L5	L6	L7

Silicon Epitaxial Planar Transistor

TYPICAL CHARACTERISTICS @ $T_A = 25^\circ\text{C}$ unless otherwise specified



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

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