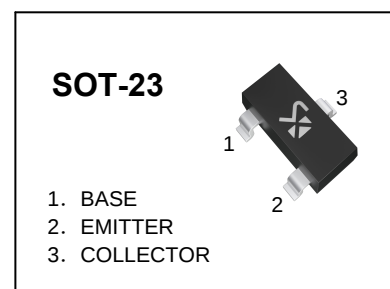


NPN Silicon Epitaxial Planar Transistor

1. Features

- For switching and amplifier applications
- Complimentary to 2SD624.



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

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	700	mA
P_C	Collector Power Dissipation	200	mW
T_j	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55-+150	$^\circ\text{C}$

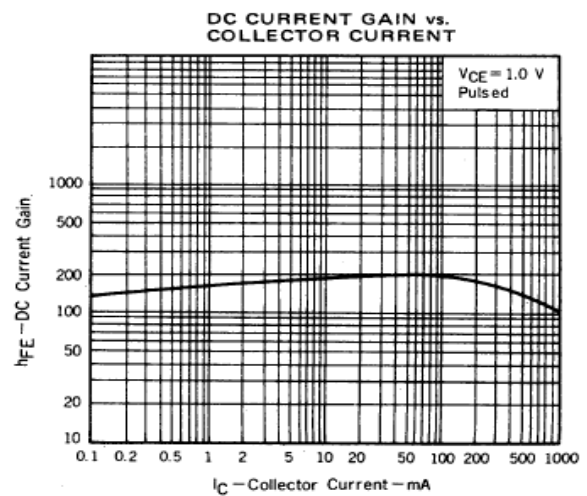
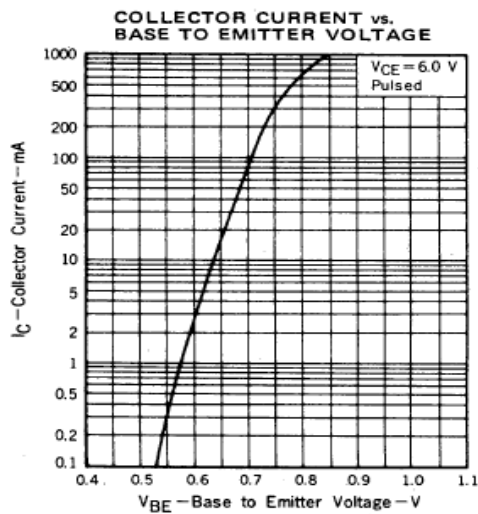
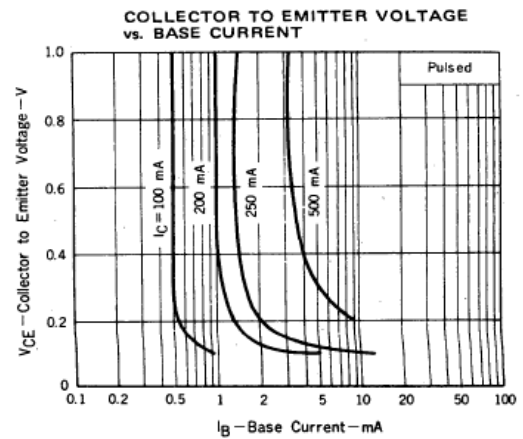
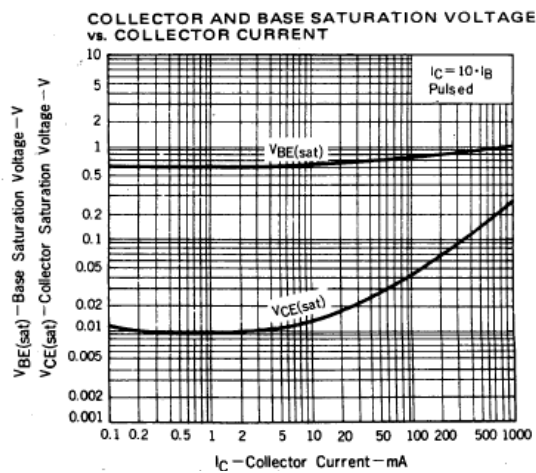
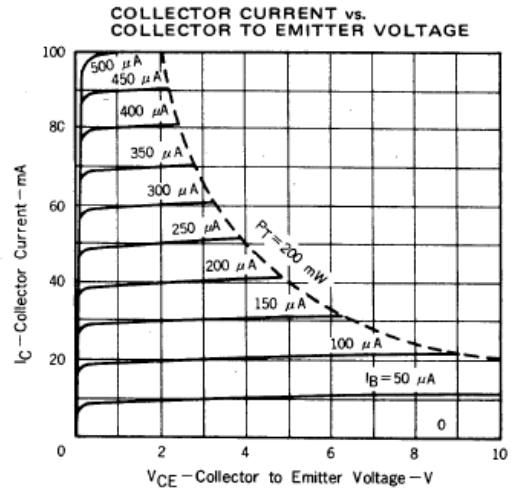
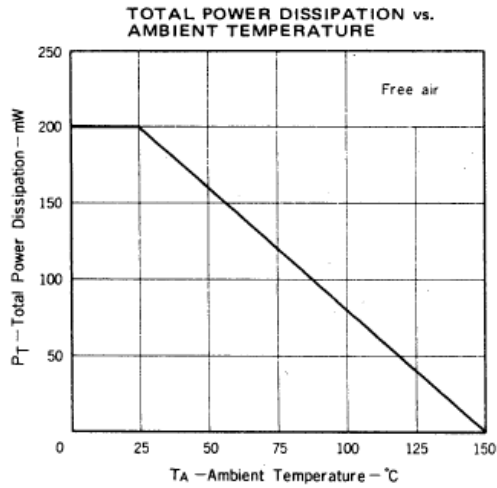
ELECTRICAL CHARACTERISTICS ($T_{amb}=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu\text{A}, I_E = 0$	30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, I_B = 0$	25			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}	$V_{CB} = 30\text{V}, I_E = 0$			1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 5\text{V}, I_C = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 1\text{V}, I_C = 100\text{mA}$ $V_{CE} = 1\text{V}, I_C = 700\text{mA}$	110 50	200	400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 700\text{mA}, I_B = 70\text{mA}$		0.22	0.6	V
Base-emitter voltage	V_{BE}	$V_{CE} = -6\text{V}, I_C = -10\text{mA}$	0.6		0.7	V
Transition frequency	f_T	$V_{CE} = 6\text{V}, I_C = 10\text{mA}$		160		MHz
Output Capacitance	C_{ob}	$V_{CB} = 6\text{V}, I_E = 0, f = 1\text{MHz}$		17		pF

CLASSIFICATION OF $h_{FE(1)}$

Marking	DV1	DV2	DV3	DV4	DV5
Range	110-180	135-220	170-270	200-320	250-400

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



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

