

Ordering number:5182

NPN Triple Diffused Planar Silicon Transistor



2SA1967

High-Voltage Amplifier, High-Voltage Switching Applications

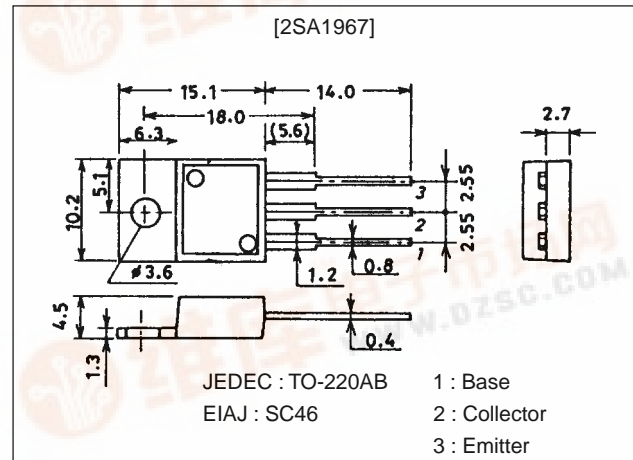
Features

- High breakdown voltage (V_{CEO} min=-900V).
- Small C_{ob} (C_{ob} typ=2.2pF).
- High reliability (Adoption of HVP process).

Package Dimensions

unit:mm

2010C



Specifications

Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		-900	V
Collector-to-Emitter Voltage	V_{CEO}		-900	V
Emitter-to-Base Voltage	V_{EBO}		-7	V
Collector Current	I_C		-10	mA
Collector Current (Pulse)	I_{CP}		-30	mA
Collector Dissipation	P_C		1.75	W
Junction Temperature	T_J		150	$^\circ\text{C}$
Storage Temperature	T_{stg}		-55 to +150	$^\circ\text{C}$

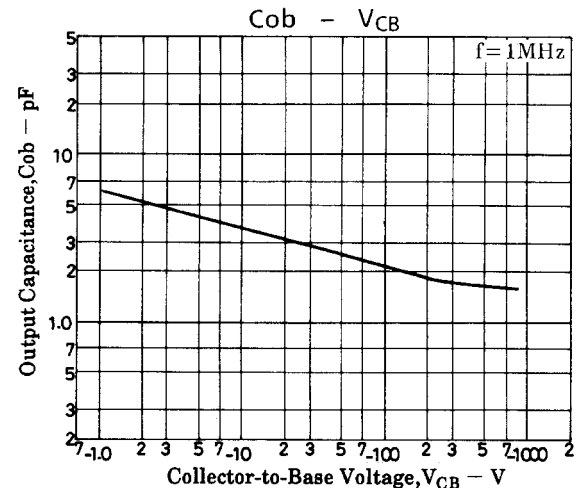
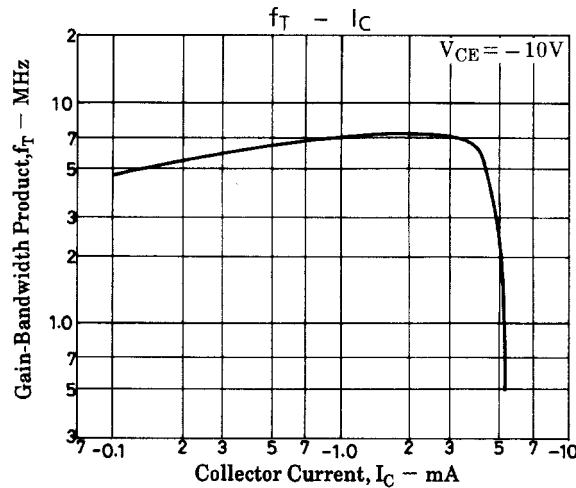
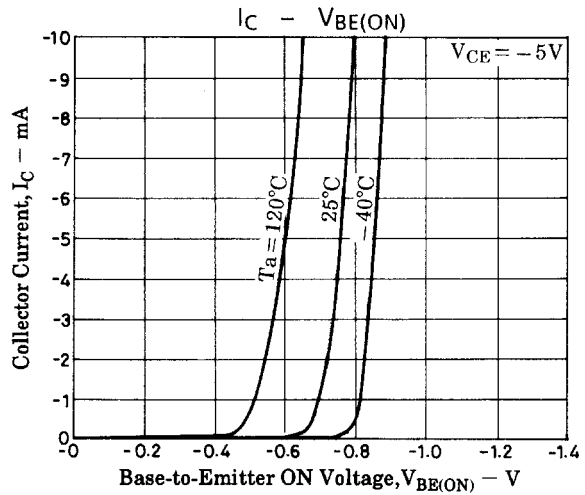
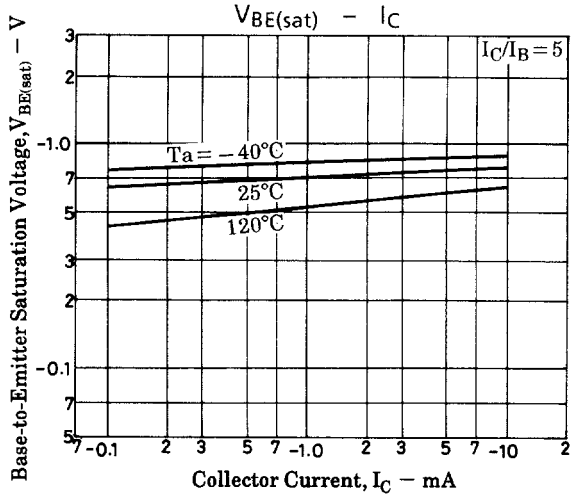
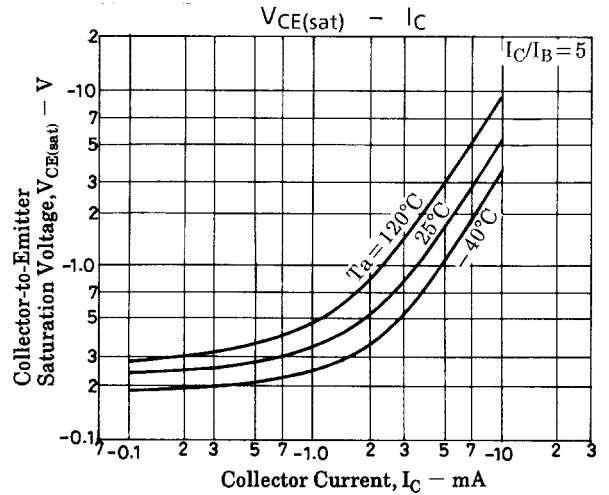
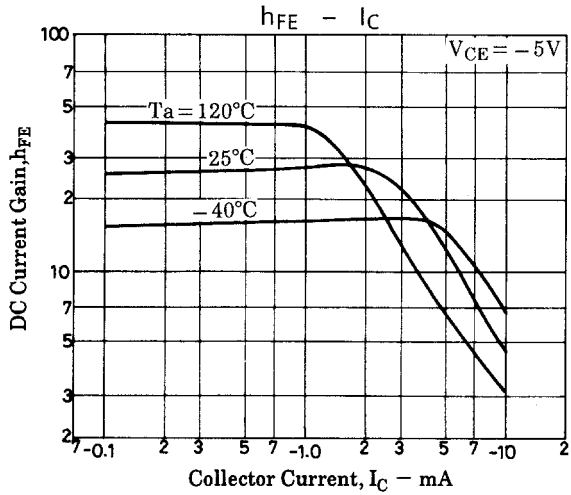
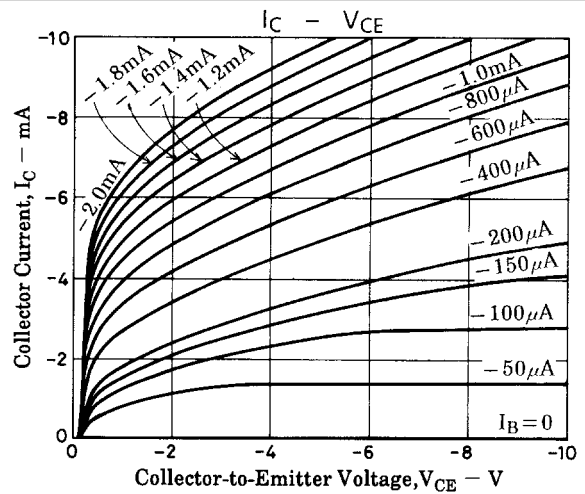
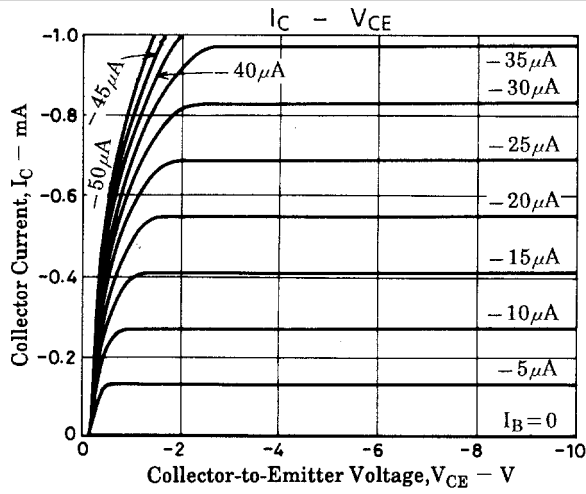
Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=-900\text{V}, I_E=0$			-1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			-1	μA
DC Current Gain	h_{FE}	$V_{CE}=-5\text{V}, I_C=-1\text{mA}$	20		50	
Gain-Bandwidth Product	f_T	$V_{CE}=-10\text{V}, I_C=-1\text{mA}$		6		MHz
Output Capacitance	C_{ob}	$V_{CB}=-100\text{V}, f=1\text{MHz}$		2.2		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-500\mu\text{A}, I_B=-100\mu\text{A}$			-1	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-500\mu\text{A}, I_B=-100\mu\text{A}$			-1.5	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-900			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}, R_{BE}=\infty$	-900			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}, I_C=0$	-7			V

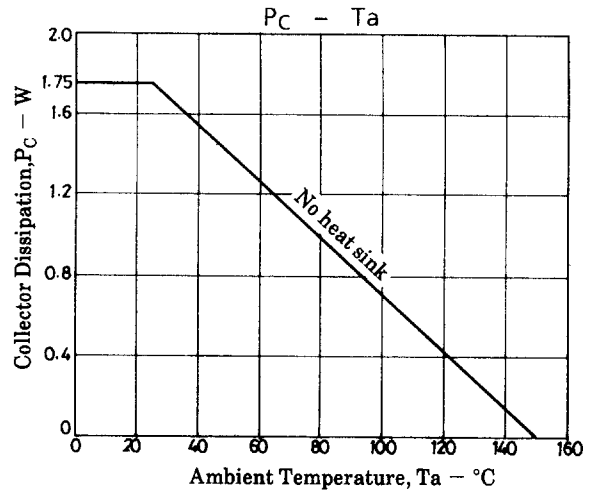
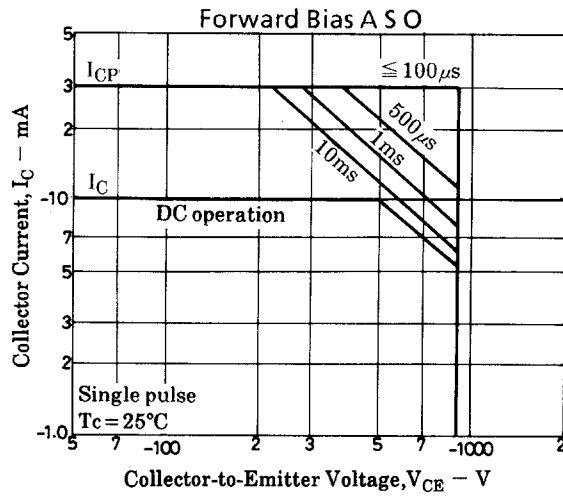
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