

SANYO	No.3686A	2SA1831
PNP Triple Diffused Planar Silicon Transistor High-Voltage Amp, High-Voltage Switching		

Features

- High breakdown voltage ($V_{CEO \text{ min}} = -800V$).
- Small c_{ob} ($c_{ob \text{ typ}} = 1.6pF$).
- High reliability (Adoption of HVP processes).

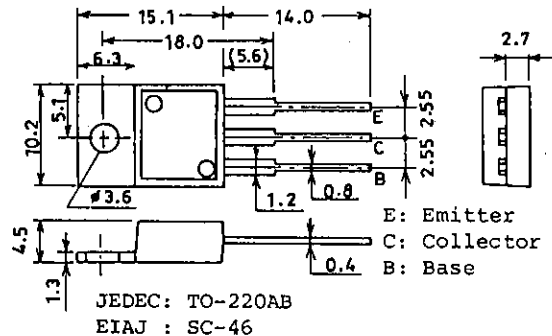
Absolute Maximum Ratings at $T_a = 25^\circ C$

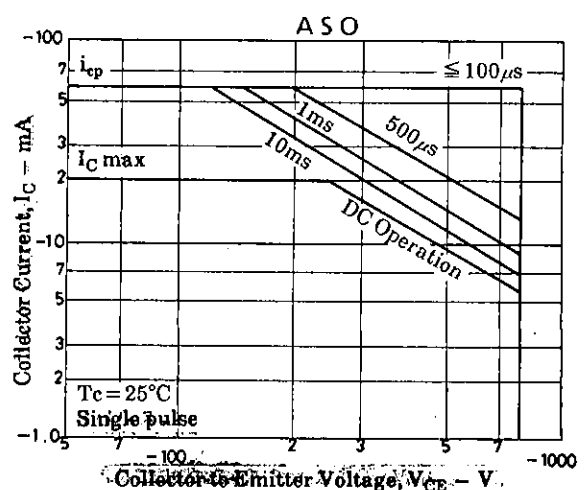
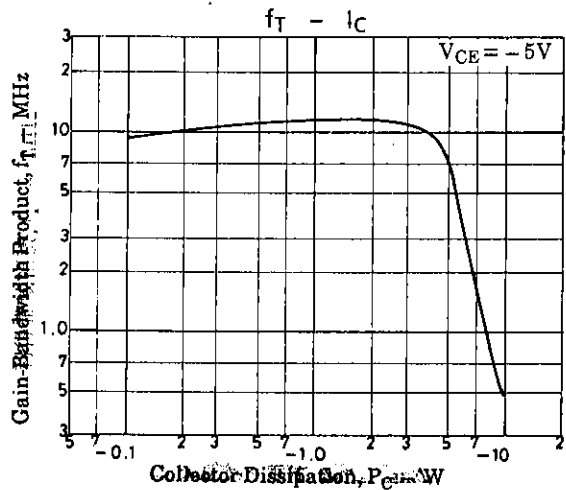
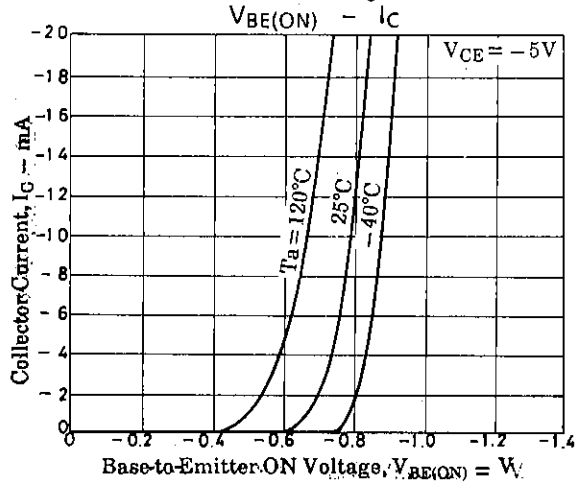
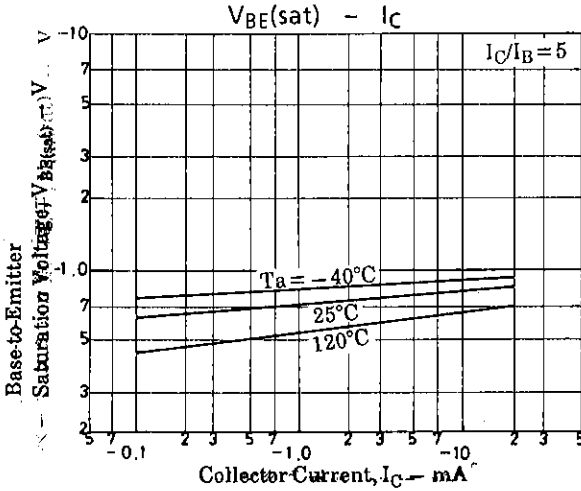
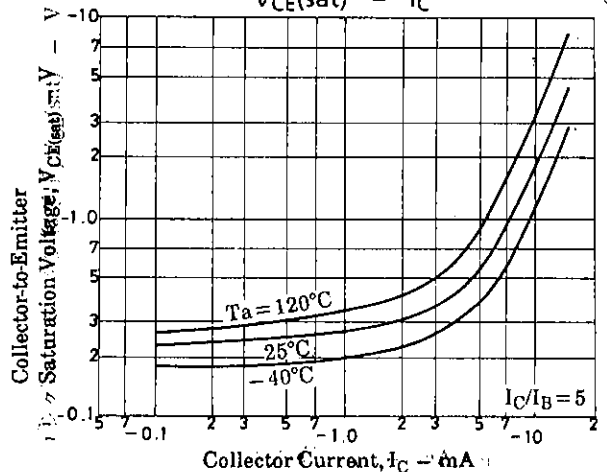
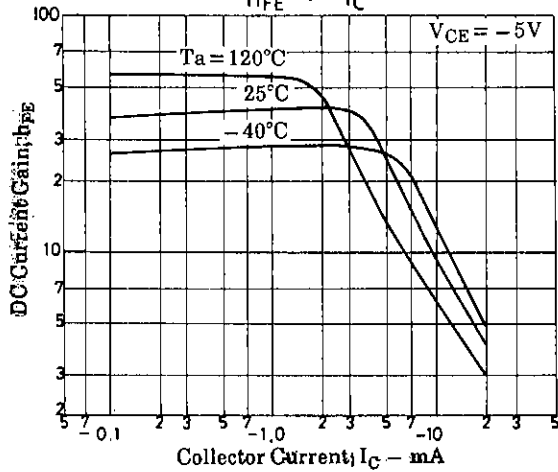
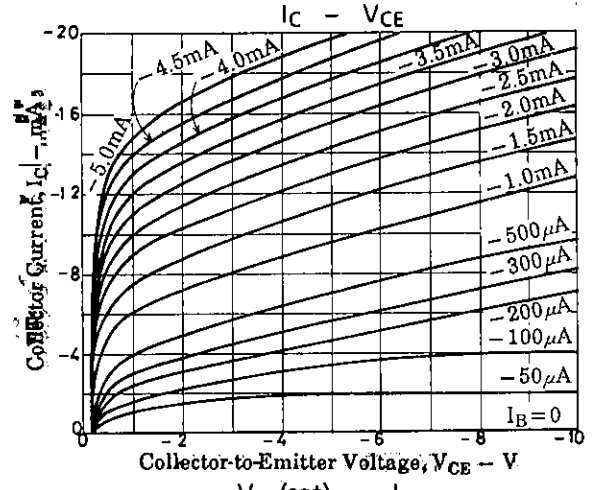
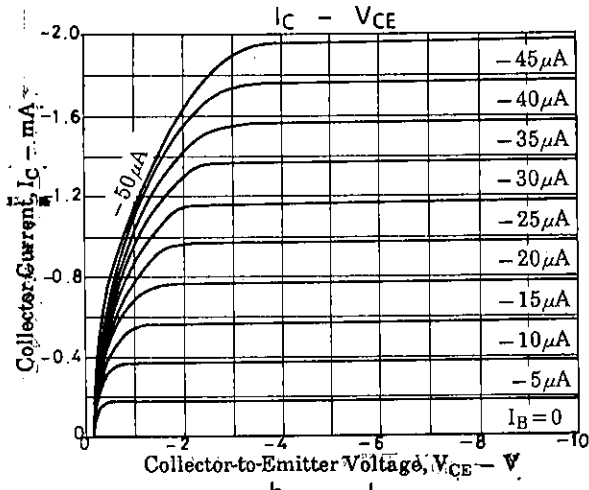
			unit
Collector-to-Base Voltage	V_{CBO}	-800	V
Collector-to-Emitter Voltage	V_{CEO}	-800	V
Emitter-to-Base Voltage	V_{EBO}	-7	V
Collector Current	I_C	-20	mA
Peak Collector Current	i_{cp}	-60	mA
Collector Dissipation	P_C	1.75	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature	T_{stg}	-55 to +150	$^\circ C$

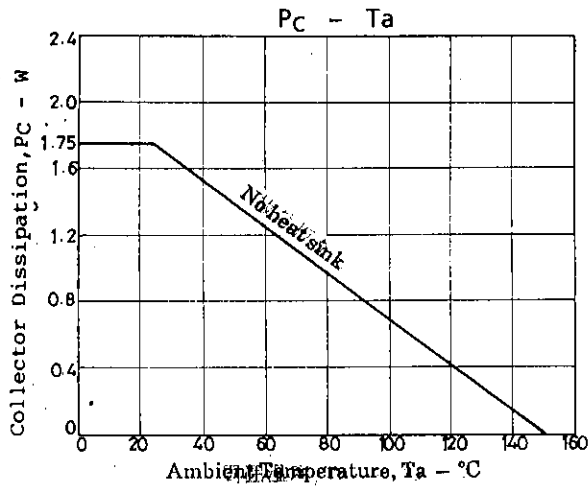
Electrical Characteristics at $T_a = 25^\circ C$

			min	typ		max	
Collector Cutoff Current	I_{CBO}	$V_{CB} = -800V, I_E = 0$				-1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$				-1	μA
DC Current Gain	h_{FE}	$V_{CE} = -5V, I_C = -2mA$	20			50	
Gain-Bandwidth Product	f_T	$V_{CE} = -10V, I_C = -2mA$		10			MHz
Output Capacitance	c_{ob}	$V_{CB} = -100V, f = 1MHz$		1.6			pF
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = -1mA, I_B = -200\mu A$				-1	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = -1mA, I_B = -200\mu A$				-1.5	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-800				V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -1mA, R_{BE} = \infty$	-800				V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100\mu A, I_C = 0$	-7				V
Thermal Resistance	$R_{th(j-c)}$	Junction - Case				8.3	$^\circ C/W$

Package Dimensions 2010B
(unit: mm)







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