

**SANYO**

No.3700A

**2SC4631**

NPN Triple Diffused Planar Silicon Transistor  
 High-Voltage Amp,  
 High-Voltage Switching Applications

**Features**

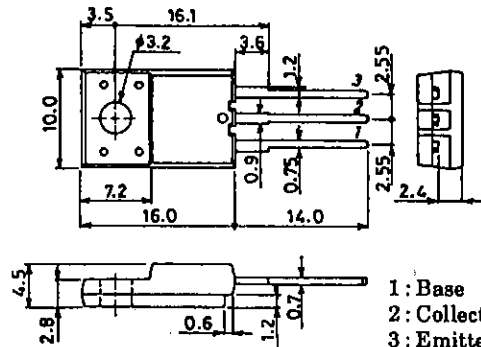
- High breakdown voltage ( $V_{CEO \text{ min}} = 900\text{V}$ ).
- Small Cob (typical Cob = 5.0pF).
- Full-isolation package.
- High reliability (Adoption of HVP process).

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

			unit
Collector-to-Base Voltage	$V_{CBO}$	1500	V
Collector-to-Emitter Voltage	$V_{CEO}$	900	V
Emitter-to-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	300	mA
Collector Current (Pulse)	$I_{CP}$	1	A
Collector Dissipation	$P_C$	2	W
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$

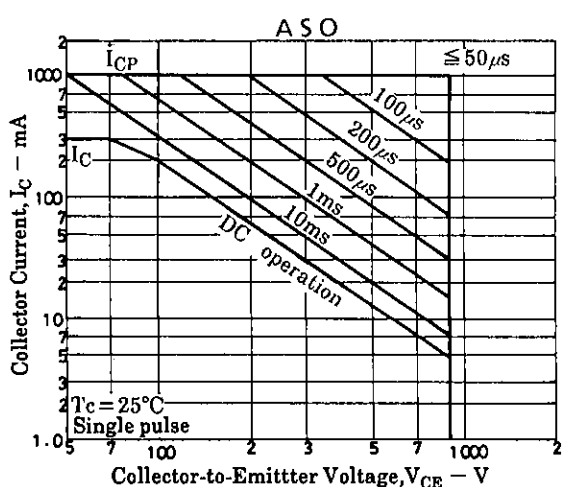
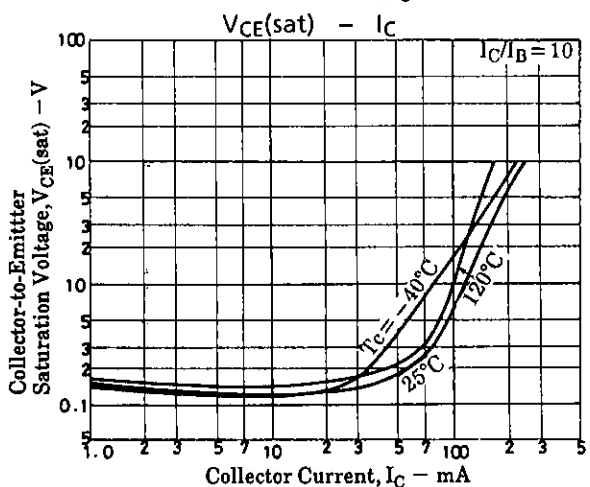
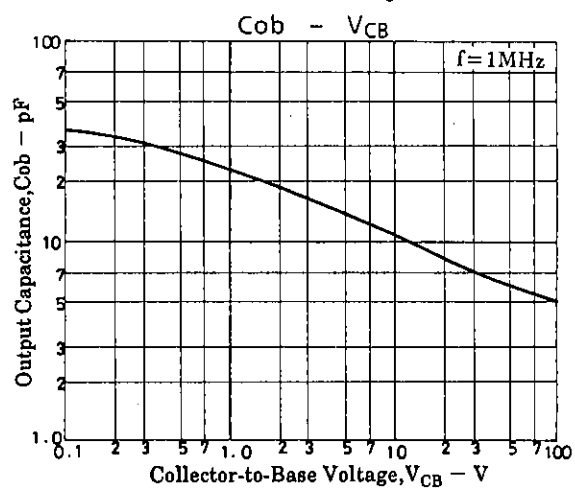
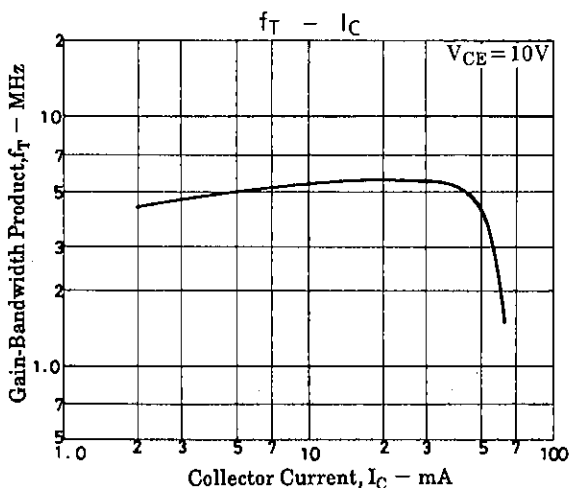
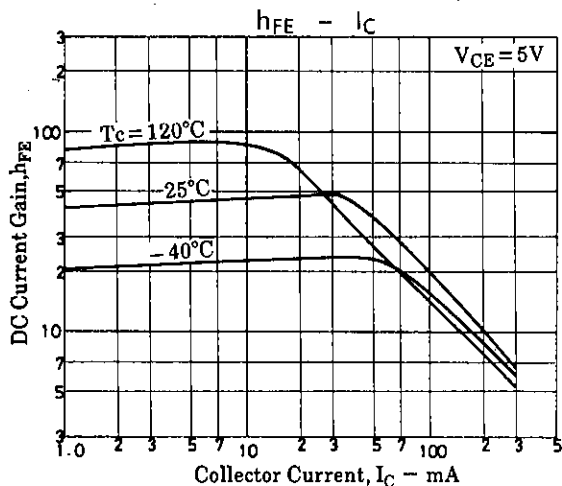
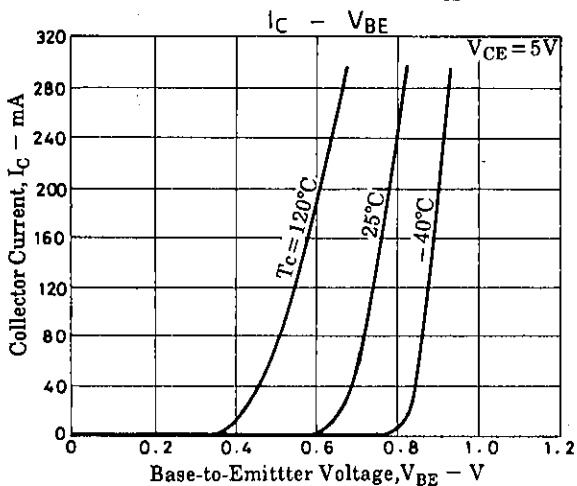
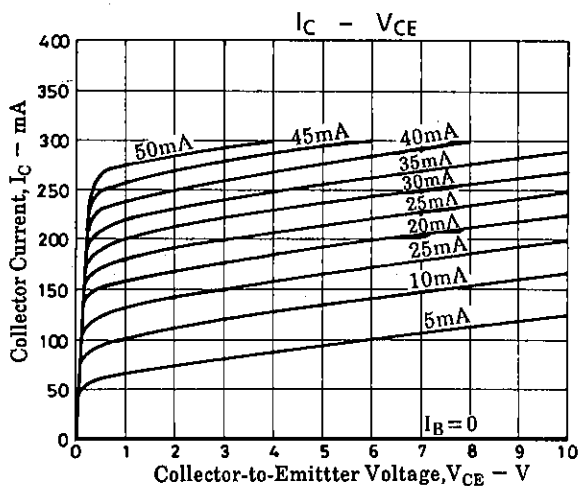
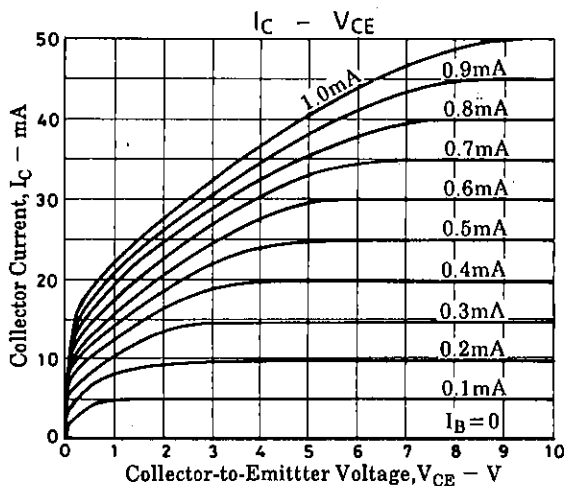
**Electrical Characteristics at  $T_a = 25^\circ\text{C}$** 

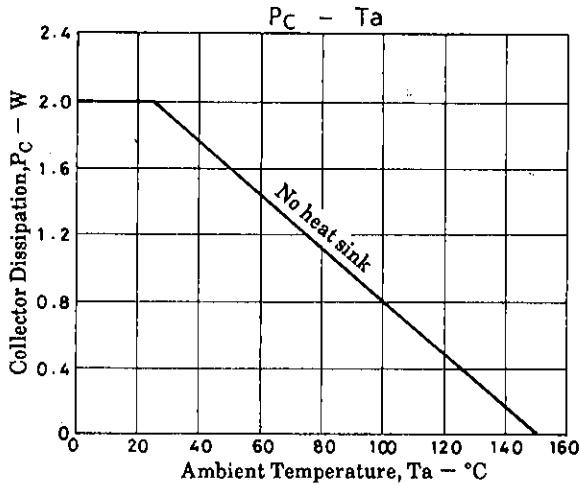
			min	typ	max	unit
Collector Cutoff Current	$I_{CBO}$	$V_{CB} = 900\text{V}, I_E = 0$			10	$\mu\text{A}$
Emitter Cutoff Current	$I_{EBO}$	$V_{EB} = 4\text{V}, I_C = 0$			10	$\mu\text{A}$
DC Current Gain	$h_{FE}$	$V_{CE} = 5\text{V}, I_C = 30\text{mA}$	30			
Gain-Bandwidth Product	$f_T$	$V_{CE} = 10\text{V}, I_C = 30\text{mA}$		6		MHz
C-E Saturation Voltage	$V_{CE(sat)}$	$I_C = 60\text{mA}, I_B = 12\text{mA}$			5	V
B-E Saturation Voltage	$V_{BE(sat)}$	$I_C = 60\text{mA}, I_B = 12\text{mA}$			2	V
C-B Breakdown Voltage	$V_{(BR)CBO}$	$I_C = 1\text{mA}, I_E = 0$	1500			V
C-E Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	900			V
E-B Breakdown Voltage	$V_{(BR)EBO}$	$I_E = 1\text{mA}, I_C = 0$	5			V
Output Capacitance	Cob	$V_{CB} = 100\text{V}, f = 1\text{MHz}$		5.0		pF
Thermal Resistance	$R_{thj-c}$	Junction - case			6.25	$^\circ\text{C/W}$

**Package Dimensions 2079B**  
(unit : mm)

SANYO: TO-220FI(LS)

**SANYO Electric Co., Ltd. Semiconductor Business Headquarters**  
 TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN





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