



2SB927/2SD1247

Large-Current Driving Applications

Applications

- Power supplies, relay drivers, lamp drivers, electrical equipment.

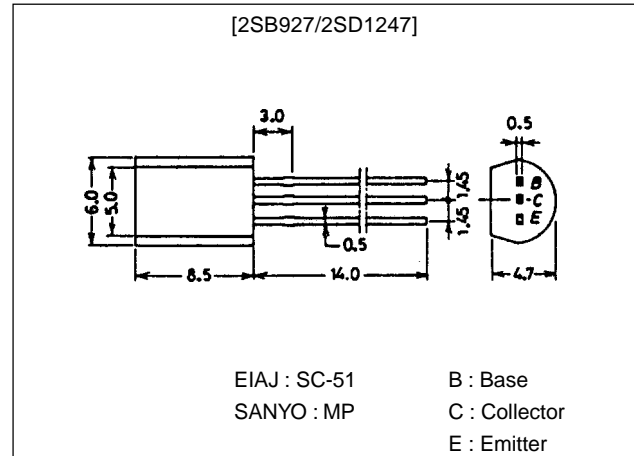
Features

- Adoption of FBET, MBIT processes.
- Low saturation voltage.
- Large current capacity and wide ASO.

Package Dimensions

unit:mm

2006A



() : 2SB927

Specifications

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

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CB0}		(-)30	V
Collector-to-Emitter Voltage	V_{CEO}		(-)25	V
Emitter-to-Base Voltage	V_{EBO}		(-)6	V
Collector Current	I_C		(-)2.5	A
Collector Current (Pulse)	I_{CP}		(-)5	A
Collector Dissipation	P_C		1.0	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_{CB0}	$V_{CB}=(-)20\text{V}, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4\text{V}, I_C=0$			(-)0.1	μA
DC Current Gain	h_{FE1}	$V_{CE}=(-)2\text{V}, I_C=(-)0.1\text{A}$	100*		560*	
	h_{FE2}	$V_{CE}=(-)2\text{V}, I_C=(-)1.5\text{A}$	65	130		
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10\text{V}, I_C=(-)50\text{mA}$		150		MHz
Common Base Output Capacitance	C_{ob}	$V_{CB}=(-)10\text{V}, f=1\text{MHz}$		19(32)		pF
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)1.5\text{A}, I_B=(-)75\text{mA}$		0.18	0.4	V
				(-)0.35	(-)0.6	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)1.5\text{A}, I_B=(-)75\text{mA}$		0.85	1.2	V

* : The 2SB927/2SD1247 are classified by 0.1A h_{FE} as follows :

100	R	200	140	S	280	200	T	400	280	U	560
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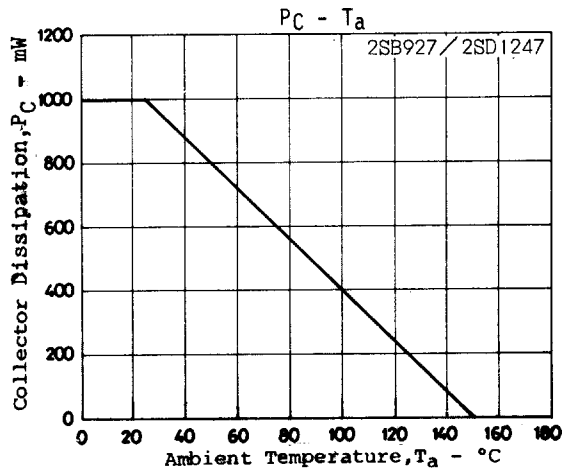
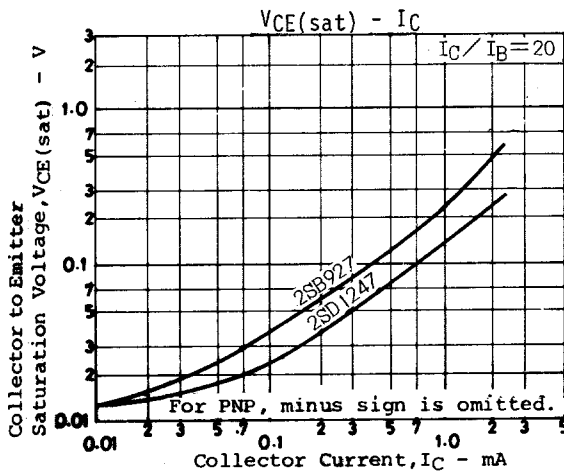
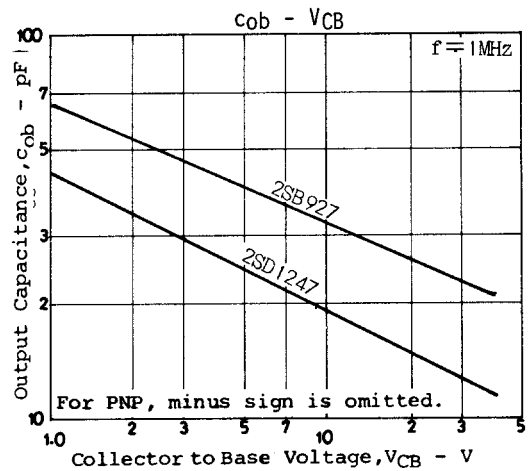
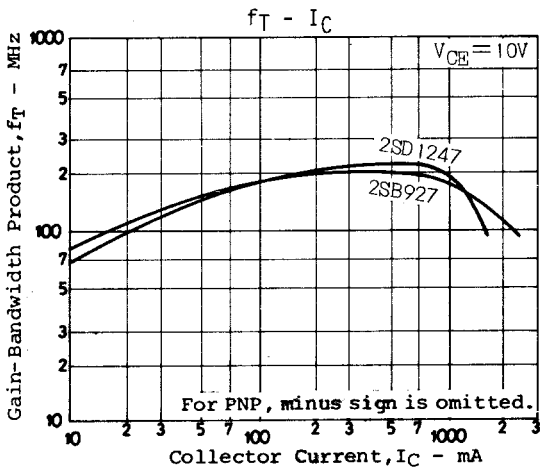
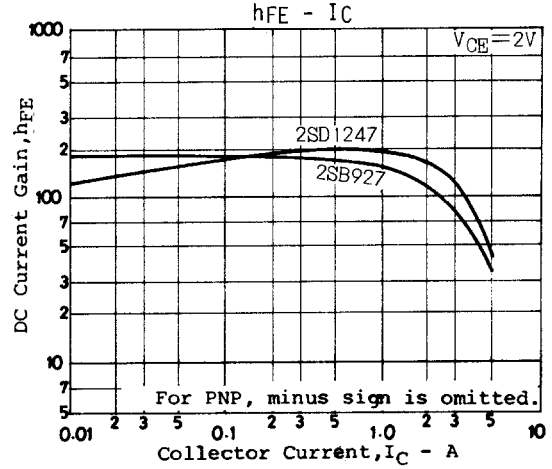
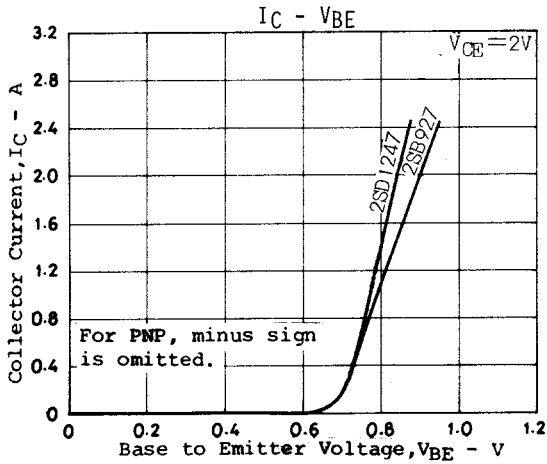
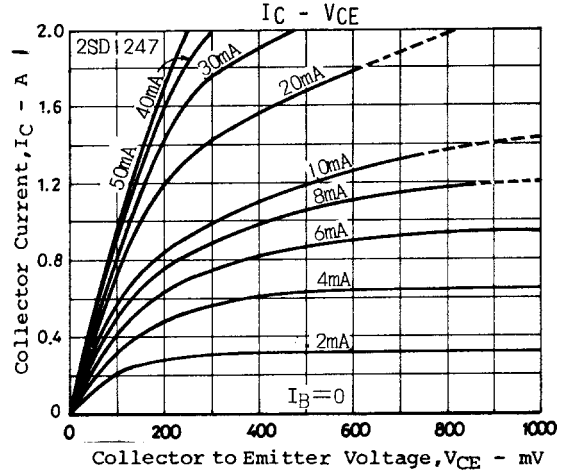
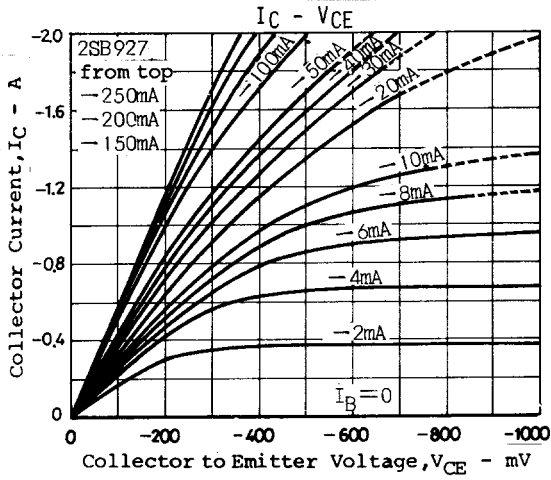
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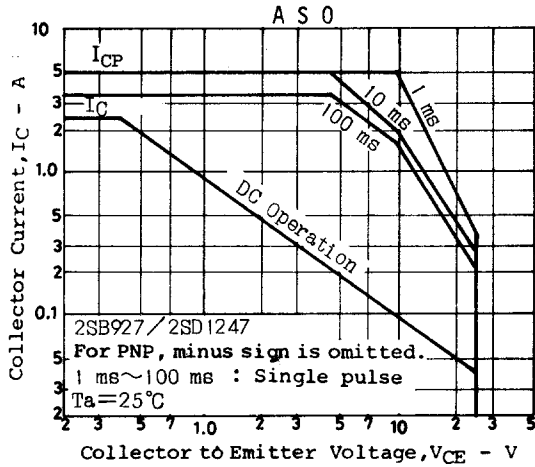
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