



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.

() : 2SB927

Specifications

Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Conditions	Ratings	Unit
Collector-to-Base Voltage	V_{CBO}		(-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	°C
Storage Temperature	T_{stg}		-55 to +150	°C

Electrical Characteristics at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)20V, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)4V, I_C=0$			(-)0.1	μA
DC Current Gain	h_{FE1}	$V_{CE}=(-)2V, I_C=(-)0.1A$	100*		560*	
	h_{FE2}	$V_{CE}=(-)2V, I_C=(-)1.5A$	65	130		
Gain-Bandwidth Product	f_T	$V_{CE}=(-)10V, I_C=(-)50mA$		150		MHz
Common Base Output Capacitance	C_{ob}	$V_{CB}=(-)10V, f=1MHz$		19(32)		pF

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

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Rank	R	S	T	U
h_{FE}	100 to 200	140 to 280	200 to 400	280 to 560

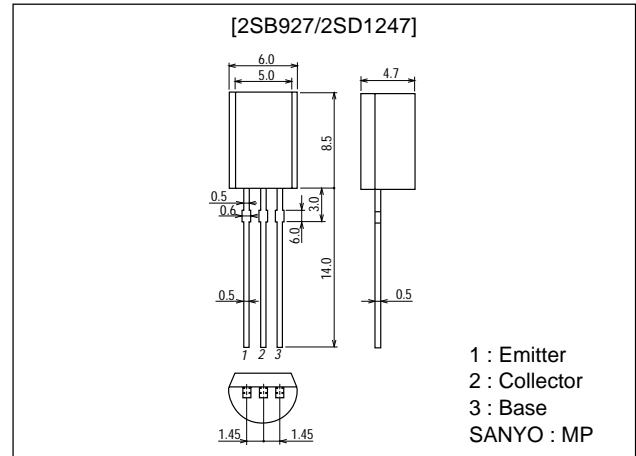
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Package Dimensions

unit:mm

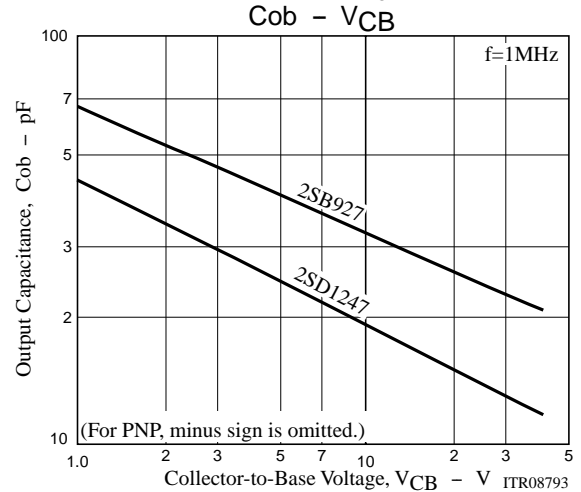
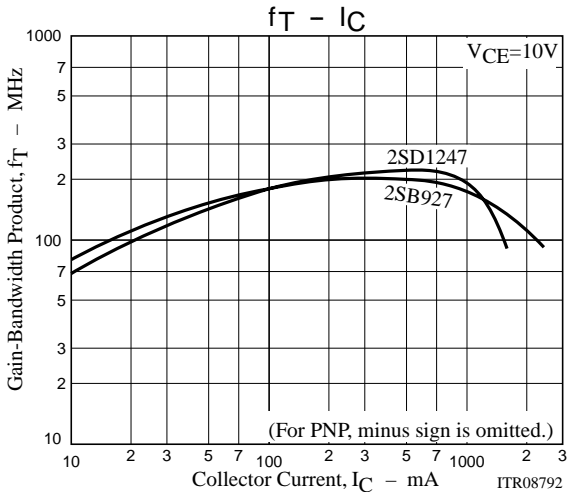
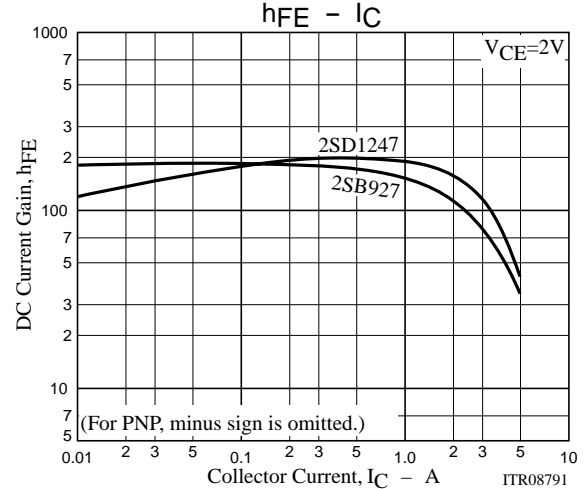
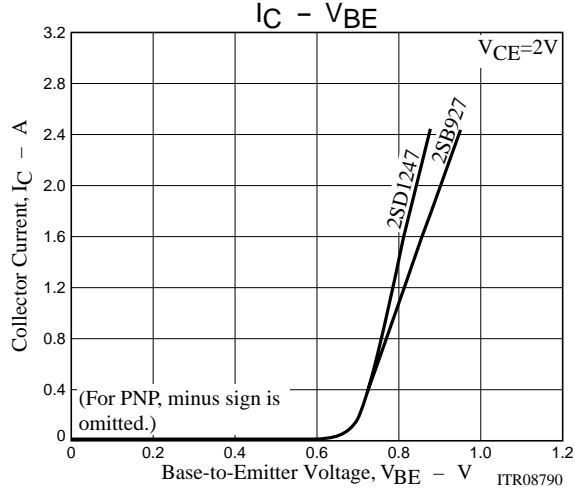
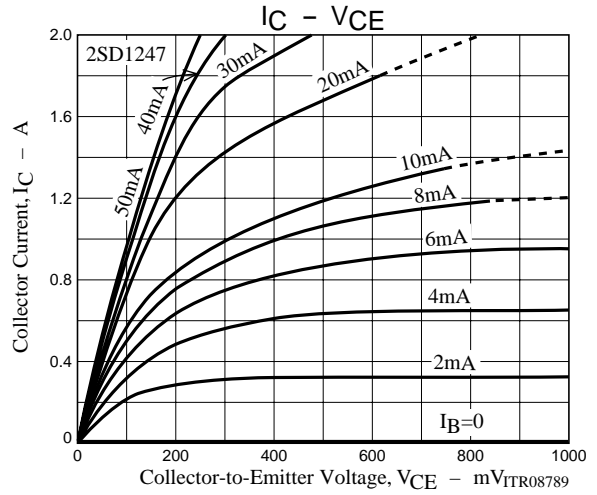
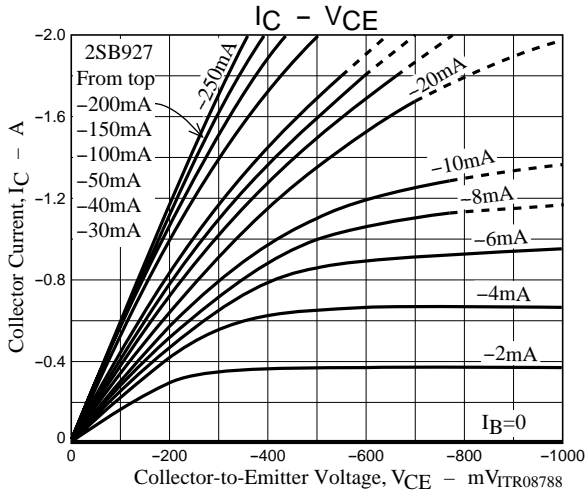
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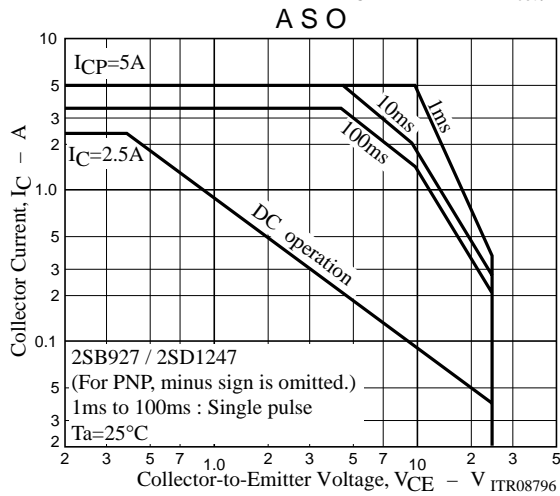
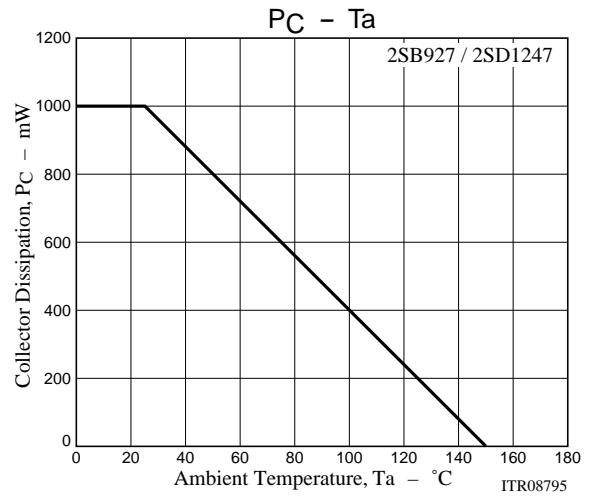
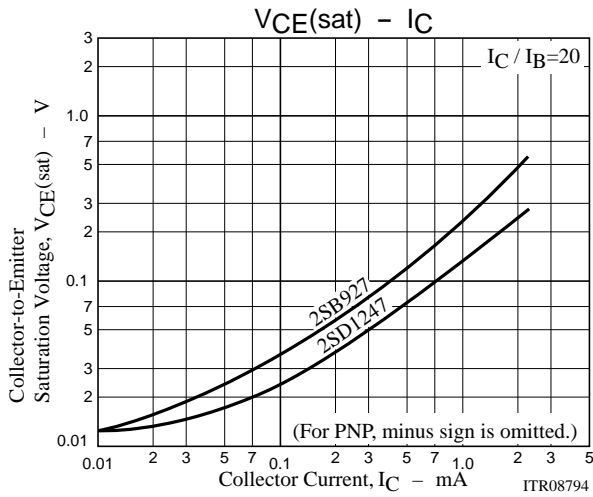
2SB927/2SD1247

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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)1.5A, I_B=(-)75mA$		0.18	0.4	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)1.5A, I_B=(-)75mA$		(-0.35)	(-0.6)	V
				0.85	1.2	V



2SB927/2SD1247



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