



2SB926/2SD1246

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.

() : 2SB926

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_{CE0}		(-) 25	V
Emitter-to-Base Voltage	V_{EB0}		(-) 6	V
Collector Current	I_C		(-) 2	A
Collector Current (Pulse)	I_{CP}		(-) 5	A
Collector Dissipation	P_C		0.75	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_{CB0}	$V_{CB} = (-)20\text{V}$, $I_E = 0$			(-) 0.1	μA
Emitter Cutoff Current	I_{EB0}	$V_{EB} = (-)4\text{V}$, $I_C = 0$			(-) 0.1	μA
DC Current Gain	h_{FE1}	$V_{CE} = (-)2\text{V}$, $I_C = (-)100\text{mA}$	100^*		560^*	
	h_{FE2}	$V_{CE} = (-)2\text{V}$, $I_C = (-)1.5\text{A}$, pulse	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

* : The 2SB926/2SD1246 are classified by $100\text{mA } h_{FE}$ 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

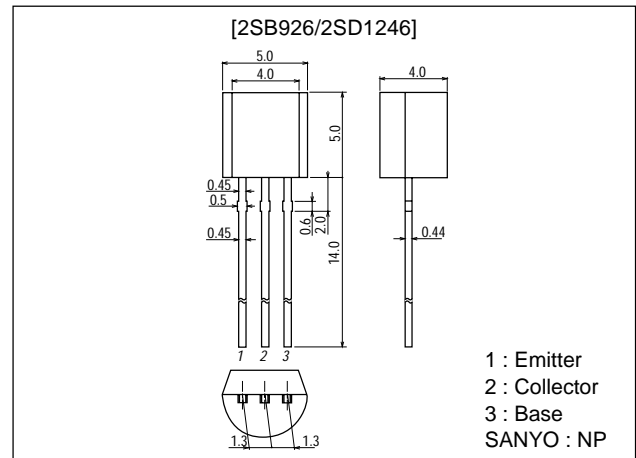
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Package Dimensions

unit:mm

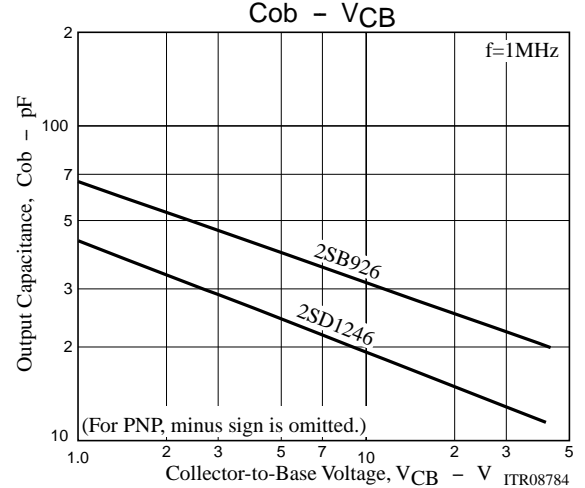
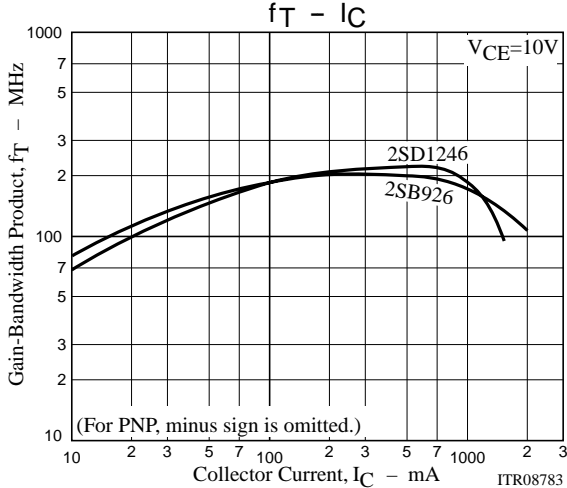
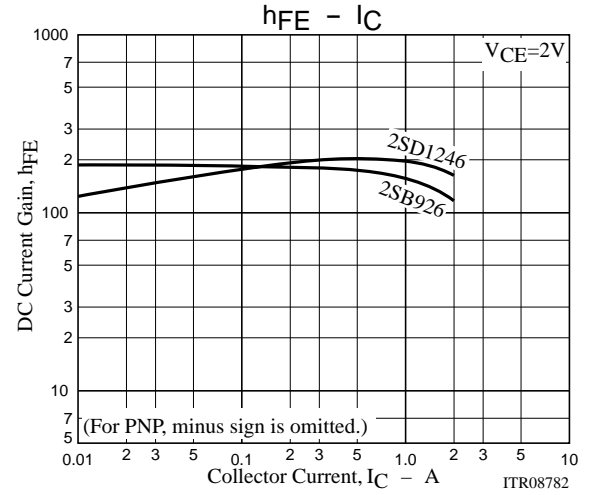
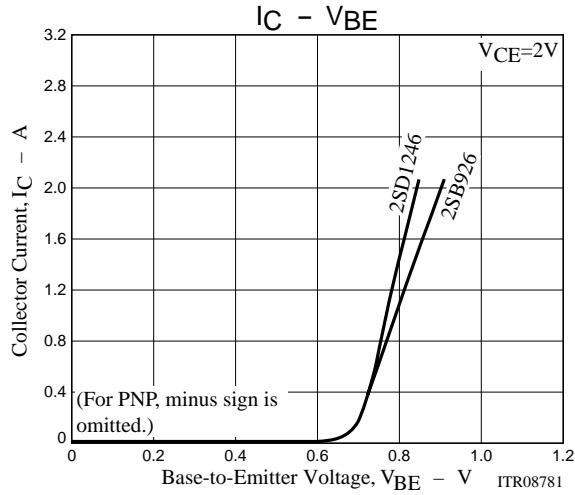
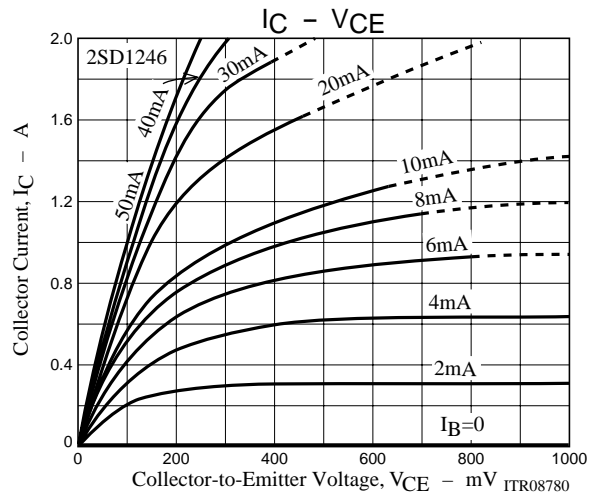
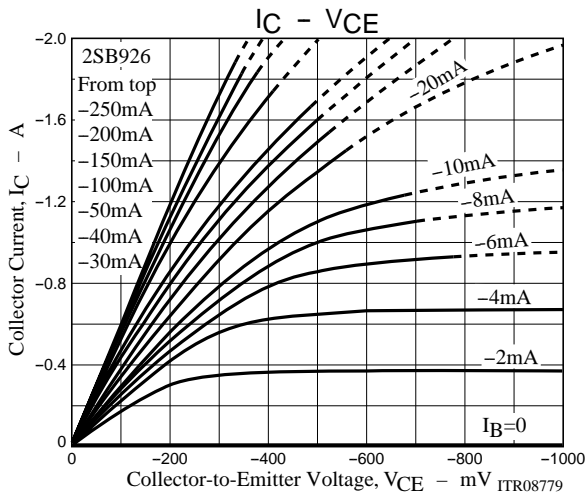
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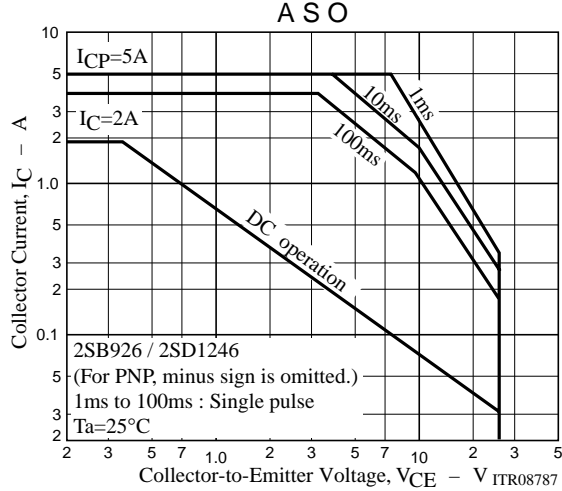
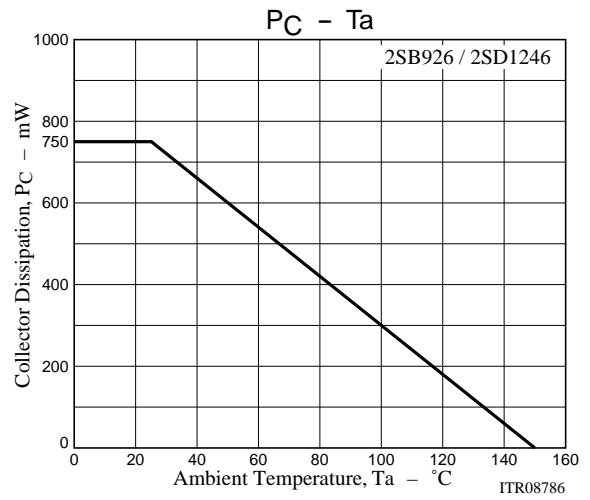
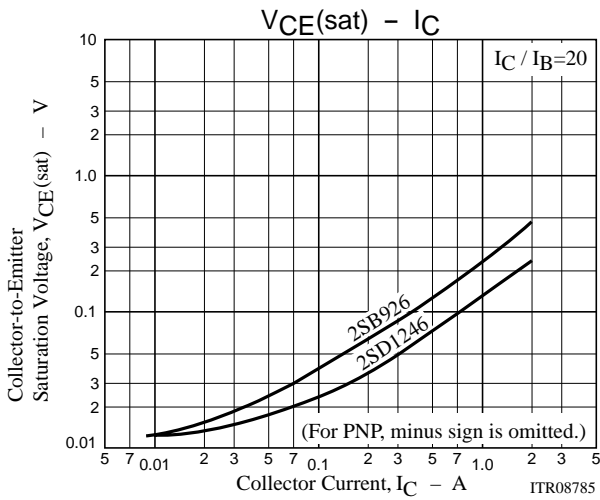
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Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)1.5A, I_B=(-)75mA, \text{pulse}$		0.18	0.4	V
Base-to-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)1.5A, I_B=(-)75mA$		(-0.35)	(-0.6)	V
Collector-to-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu A, I_E=0$	(-30)			V
Collector-to-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1mA, R_{BE}=\infty$	(-25)			V
Emitter-to-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu A, I_C=0$	(-6)			V



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