

	No.828D	2SB865/2SD1153 PNP/ NPN Epitaxial Planar Silicon Darlington Transistors Drivers Applications

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Uses

- Relay drivers, hammer drivers, lamp drivers, motor drivers

Features

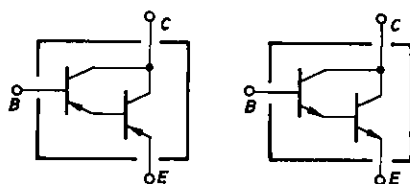
- High DC current gain (4000 or more)
- Large current capacity and wide ASO
- Low saturation voltage

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

			unit
Collector to Base Voltage	V_{CB0}	(-)80	V
Collector to Emitter Voltage	V_{CE0}	(-)50	V
Emitter to Base Voltage	V_{EB0}	(-)10	V
Collector Current	I_C	(-)1.5	A
Collector Current(Pulse)	I_{CP}	(-)3	A
Collector Dissipation	P_C	900	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

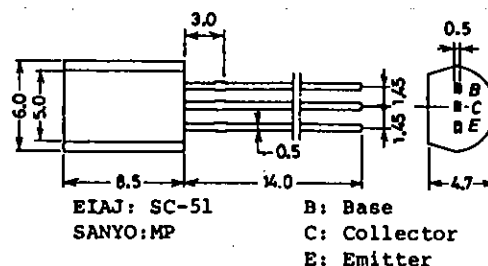
Electrical Characteristics/ $T_a=25^\circ\text{C}$

			min	typ	max	unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=(-)40\text{V}, I_E=0$			(-)0.1	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=(-)8\text{V}, I_C=0$			(-)0.1	μA
DC current gain	$h_{FE}(1)$	$V_{CE}=(-)2\text{V}, I_C=(-)500\text{mA}$	4000			
	$h_{FE}(2)$	$V_{CE}=(-)2\text{V}, I_C=(-)10\text{mA}$	3000			
Gain-bandwidth product	f_T	$V_{CE}=(-)10\text{V}, I_C=(-)50\text{mA}$		120		MHz
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=(-)500\text{mA}, I_B=(-)0.5\text{mA}$		(-)0.9	(-)1.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=(-)500\text{mA}, I_B=(-)0.5\text{mA}$		(-)1.5	(-)2.0	V
Collector to Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C=(-)10\mu\text{A}, I_E=0$	(-)80			V
Collector to Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=(-)1\text{mA}, R_{BE}=\infty$	(-)50			V
Emitter to Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=(-)10\mu\text{A}, I_C=0$	(-)10			V

Electrical Connection

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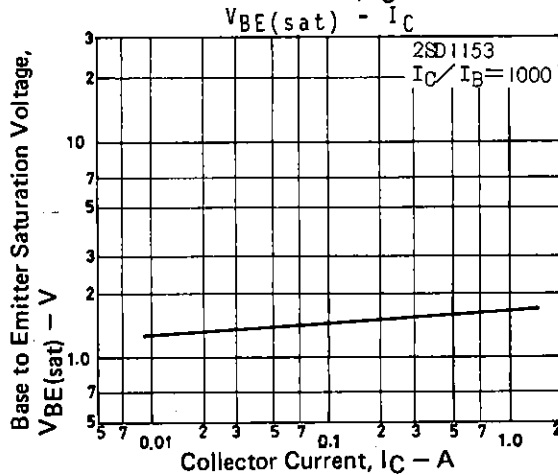
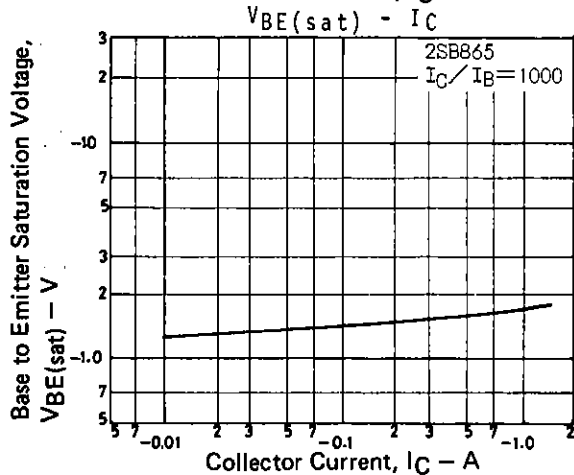
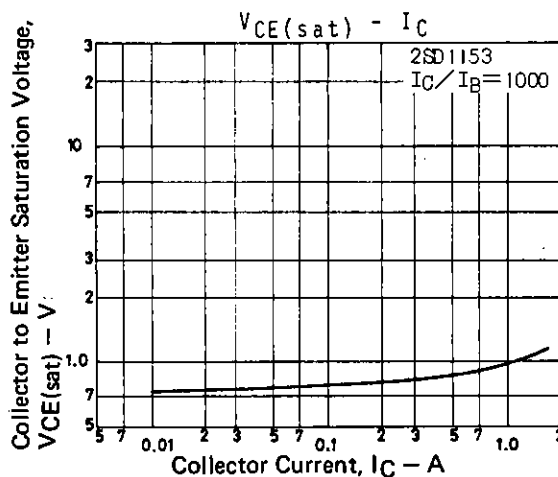
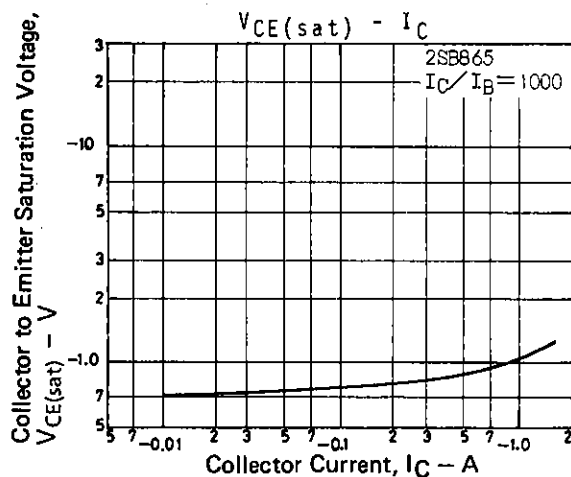
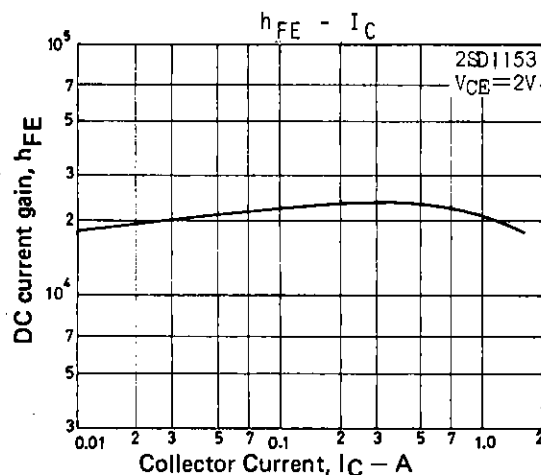
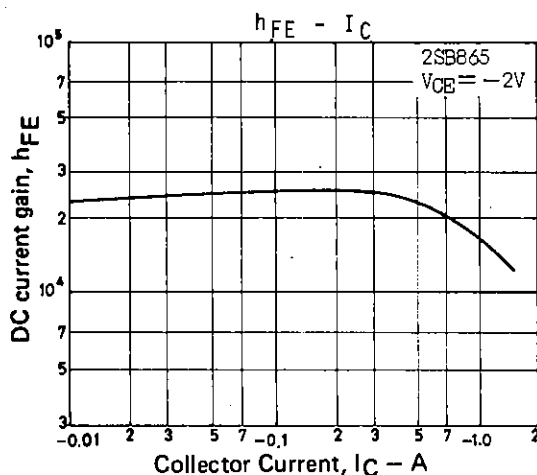
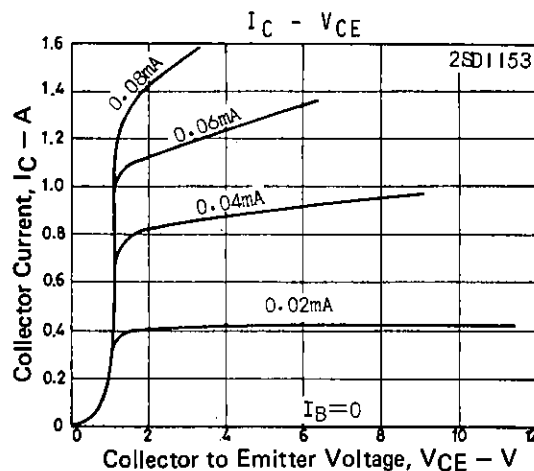
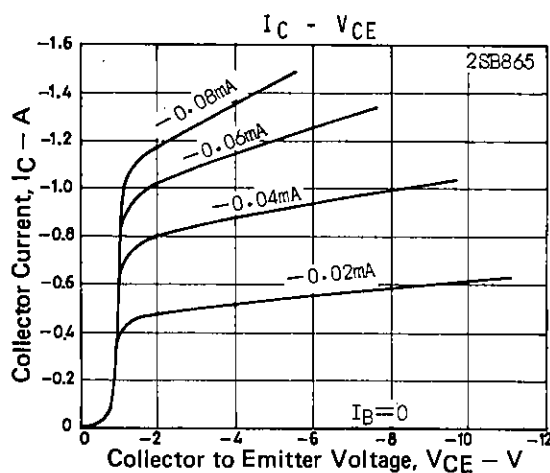
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Package Dimensions 2006A
(unit: mm)

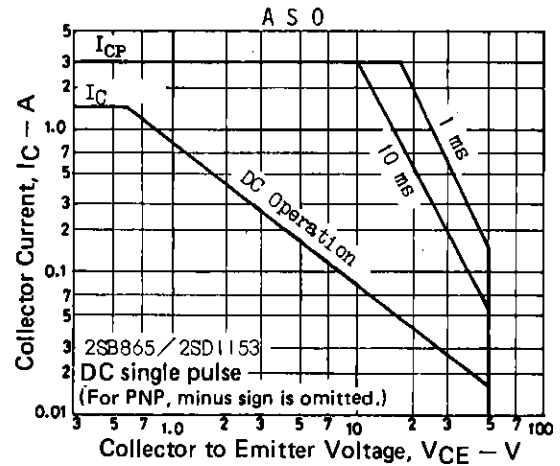
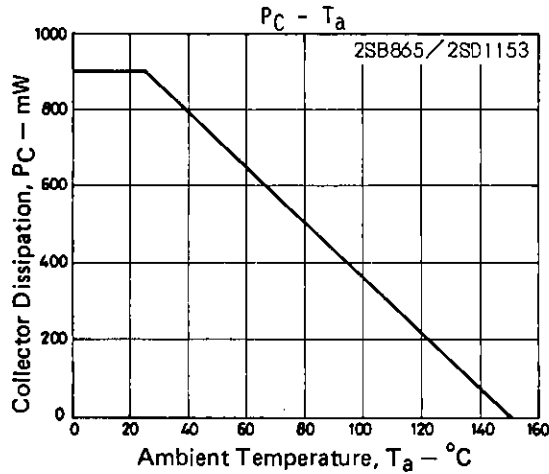
SANYO Electric Co., Ltd. Semiconductor Business Headquarters
 TOKYO OFFICE Tokyo Bldg., 1-10, 1 Chome, Ueno, Taito-ku, TOKYO, 110 JAPAN

4027KI/3045MW/D152KI, TS No.828-1/3

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