2SC5905

Silicon NPN triple diffusion mesa type

Horizontal deflection output for TV, CRT monitor

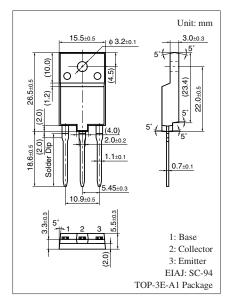
■ Features

- High breakdown voltage: $V_{CBO} \ge 1700 \text{ V}$
- High-speed switching: $t_f < 200$ ns
- Wide safe operation area

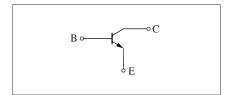
■ Absolute Maximum Ratings $T_C = 25$ °C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (En	V _{CBO}	1700	V	
Collector-emitter voltage (V _{CES}	1700	V	
Collector-emitter voltage (V _{CEO}	600	V	
Emitter-base voltage (Collector open)		V_{EBO}	7	V
Base current		I_B	8	A
Collector current		I_C	20	A
Peak collector current *		I_{CP}	30	A
Collector power dissipation		P _C	70	W
	$T_a = 25^{\circ}C$		3.5	
Junction temperature		T_{j}	150	°C
Storage temperature		T_{stg}	-55 to +150	°C

Note) *: Non-repetitive peak collector current



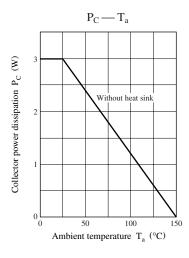
Internal Connection

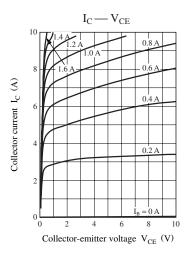


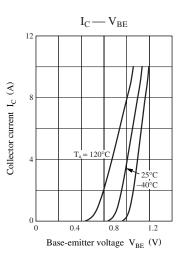
■ Electrical Characteristics $T_C = 25$ °C ± 3 °C

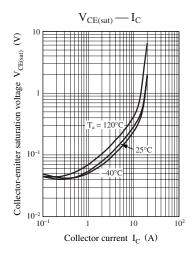
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 1000 \text{ V}, I_{E} = 0$			50	μΑ
		$V_{CB} = 1700 \text{ V}, I_E = 0$			1	mA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 7 \text{ V}, I_{C} = 0$			50	μΑ
Forward current transfer ratio	h_{FE}	$V_{CE} = 5 \text{ V}, I_{C} = 10 \text{ A}$	5		12	_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 10 \text{ A}, I_B = 2.5 \text{ A}$			3	V
Base-emitter saturation voltage	V _{BE(sat)}	$I_C = 10 \text{ A}, I_B = 2.5 \text{ A}$			1.5	V
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_{C} = 0.1 \text{ A}, f = 0.5 \text{ MHz}$		3		MHz
Storage time	t _{stg}	$I_C = 10 \text{ A}$, Resistance loaded			3.0	μs
Fall time	t _f	$I_{B1} = 2.5 \text{ A}, I_{B2} = -5.0 \text{ A}$			0.2	μs

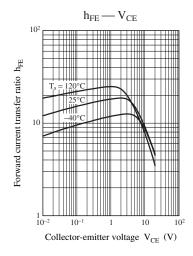
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

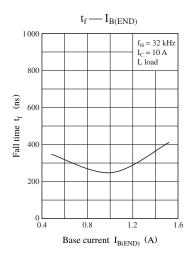


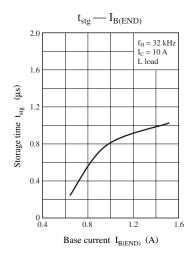


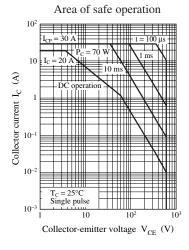


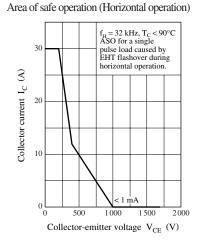












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