2SC5905

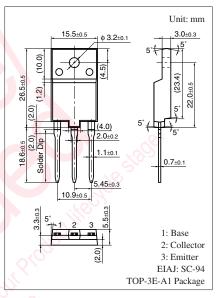
Silicon NPN triple diffusion mesa type

Horizontal deflection output for TV, CRT monitor

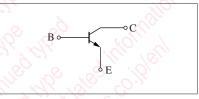
Features

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

Absolute Maximum Ratings $T_C = 25^{\circ}C$ Symbol Rating Unit Parameter 1700 v Collector-base voltage (Emitter open) V_{CBO} Collector-emitter voltage (E-B short) V_{CES} 1700 V Collector-emitter voltage (Base open) 600 V V_{CEO} Emitter-base voltage (Collector open) V_{EBO} 7 V 8 Base current IB А Collector current 20 I_{C} А Peak collector current 30 I_{CP} А Collector power dissipation P_C 70 W $T_a = 25^{\circ}C$ 3.5 Junction temperature T 150 °C Storage temperature T_{stg} -55 to +150 °C



Internal Connection



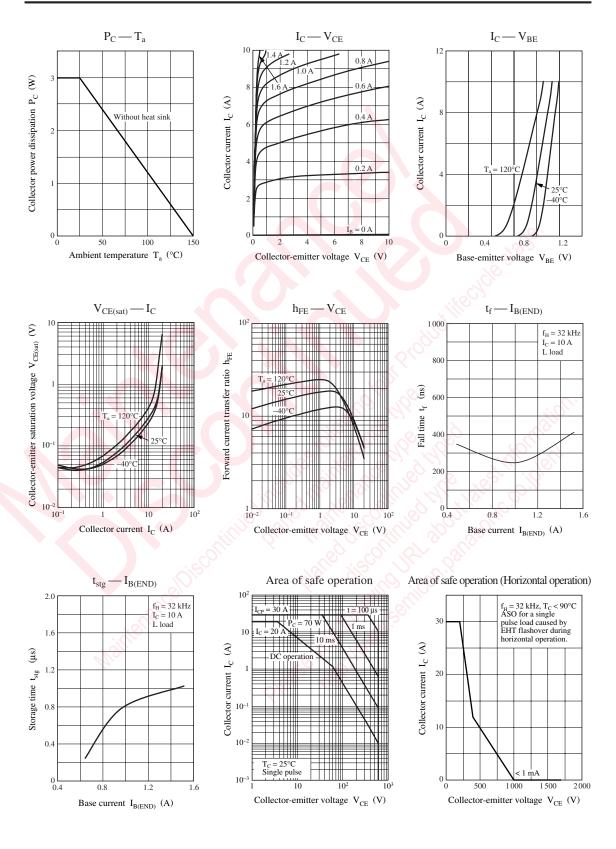
Electrical Characteristics $T_C = 25^{\circ}C \pm 3^{\circ}C$

Note) *: Non-repetitive peak collector current

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
SCO.		$V_{CB} = 1700 \text{ V}, I_E = 0$			1	mA
Emitter-base cutoff current (Collector open)	I _{EBO}	$V_{EB} = 7 V, I_C = 0$			50	μΑ
Forward current transfer ratio	h _{FE}	$V_{CE} = 5 V, I_C = 10 A$	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)}	$I_{\rm C} = 10$ A, $I_{\rm B} = 2.5$ 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}	$I_C = 10 A$, 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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