2SC5902

Silicon NPN triple diffusion mesa type

Horizontal deflection output for TV

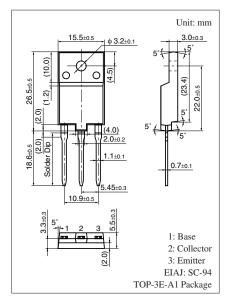
■ Features

- High breakdown voltage: $V_{CBO} \ge 1700 \text{ V}$
- Wide safe operation area
- Built-in dumper diode

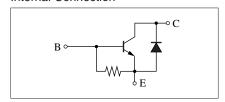
■ Absolute Maximum Ratings T_C = 25°C

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Em	V_{CBO}	1700	V	
Collector-emitter voltage (E-B short)		V _{CES}	1 700	V
Emitter-base voltage (Collector open)		V_{EBO}	7	V
Base current	I_B	3	A	
Collector current		I_{C}	9	A
Peak collector current *		I_{CP}	14	A
Collector power dissipation		P_{C}	40	W
	$T_a = 25^{\circ}C$		3	
Junction temperature		T_{j}	150	°C
Storage temperature		T_{stg}	-55 to +150	°C

Note) *: Non-repetitive peak collector current



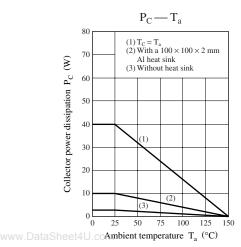
Internal Connection

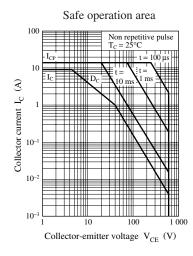


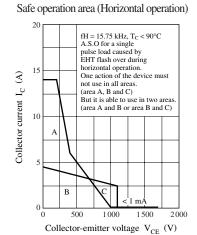
■ Electrical Characteristics $T_C = 25$ ° $C \pm 3$ °C

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 500 \text{ mA}, I_C = 0$	7			V
Forward voltage	V_F	I _F = 4.5 A			-2	V
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
Forward current transfer ratio	h _{FE}	$V_{CE} = 5 \text{ V}, I_{C} = 4.5 \text{ A}$	5		10	_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_C = 4.5 \text{ A}, I_B = 1.13 \text{ A}$			3	V
Base-emitter saturation voltage	V _{BE(sat)}	$I_C = 4.5 \text{ A}, I_B = 1.13 \text{ A}$			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}	$I_C = 4.5 \text{ A}$, Resistance loaded			5.0	μs
Fall time	t _f	$I_{B1} = 1.13 \text{ A}, I_{B2} = -2.25 \text{ A}$			0.5	μs

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







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