# 2SC5914

### Silicon NPN triple diffusion mesa type

Horizontal deflection output for TV, CRT monitor

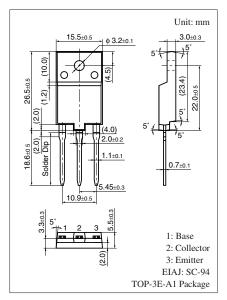
#### Features

- High breakdown voltage:  $V_{CBO} \ge 1500 \text{ V}$
- High-speed switching:  $t_f < 200$  ns
- Wide safe operation area

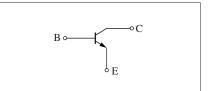
#### Absolute Maximum Ratings $T_C = 25^{\circ}C$

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)		V <sub>CBO</sub>	1 500	V
Collector-emitter voltage (E-B short)		V <sub>CES</sub>	1 500	V
Collector-emitter voltage (Base open)		V <sub>CEO</sub>	600	V
Emitter-base voltage (Collector open)		V <sub>EBO</sub>	7	V
Base current		IB	5	А
Collector current		I <sub>C</sub>	12	А
Peak collector current *		I <sub>CP</sub>	22	А
Collector power dissipation		P <sub>C</sub>	40	W
	$T_a = 25^{\circ}C$		3	
Junction temperature		Tj	150	°C
Storage temperature		T <sub>stg</sub>	-55 to +150	°C

Note) \*: Non-repetitive peak collector current



#### Internal Connection

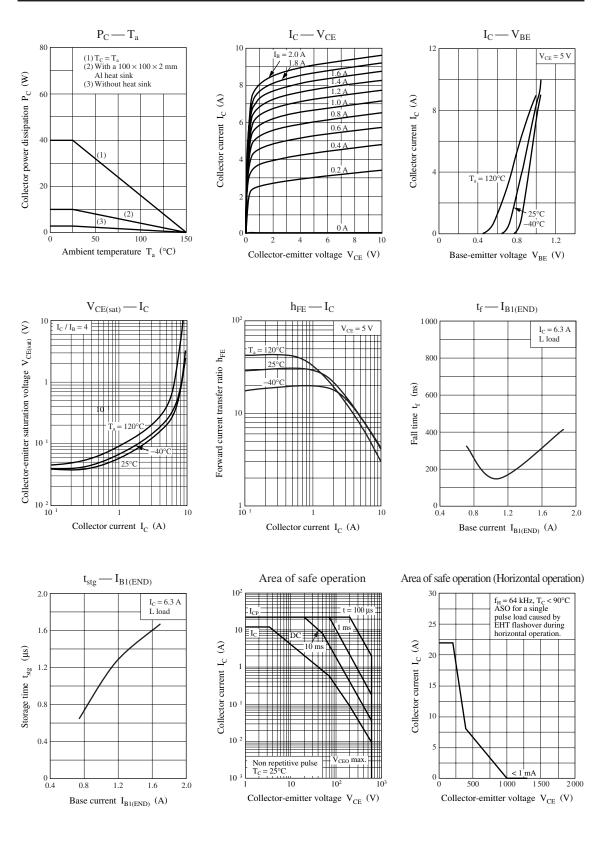


#### Electrical Characteristics $T_C = 25^{\circ}C \pm 3^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base cutoff current (Emitter open)	I <sub>CBO</sub>	$V_{CB} = 1000 \text{ V}, I_E = 0$			50	μΑ
		$V_{CB} = 1500 \text{ V}, I_E = 0$			1	mA
Emitter-base cut-off current (Collector open)	I <sub>EBO</sub>	$V_{EB} = 7 V, I_C = 0$			50	μΑ
Forward current transfer ratio	h <sub>FE</sub>	$V_{CE} = 5 V, I_C = 6 A$	5		10	_
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = 6 \text{ A}, I_{\rm B} = 1.5 \text{ A}$			2.5	V
Base-emitter saturation voltage	V <sub>BE(sat)</sub>	$I_{C} = 6 A, I_{B} = 1.5 A$			1.5	V
Transition frequency	f <sub>T</sub>	$V_{CE} = 10 \text{ V}, I_C = 0.1 \text{ A}, f = 0.5 \text{ MHz}$		3		MHz
Storage time	t <sub>stg</sub>	$I_C = 6 A$ , Resistance loaded			2.7	μs
Fall time	t <sub>f</sub>	$I_{B1} = 1.5 \text{ A}, I_{B2} = -3.0 \text{ A}$			0.2	μs

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

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