

# 2SC5553

## Silicon NPN triple diffusion mesa type

For horizontal deflection output

### ■ Features

- High breakdown voltage, and high reliability through the use of a glass passivation layer
- High-speed switching
- Wide safe operation area

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

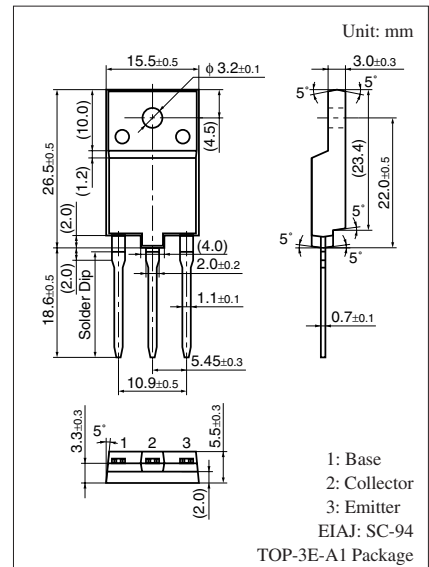
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{\text{CBO}}$	1 700	V
Collector-emitter voltage (E-B short)	$V_{\text{CES}}$	1 700	V
Collector-emitter voltage (Base open)	$V_{\text{CEO}}$	600	V
Emitter-base voltage (Collector open)	$V_{\text{EBO}}$	7	V
Base current	$I_{\text{B}}$	11	A
Collector current	$I_{\text{C}}$	22	A
Peak collector current *	$I_{\text{CP}}$	30	A
Collector power dissipation	$P_{\text{C}}$	70	W
	$T_a = 25^\circ\text{C}$	3.5	
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

Note) \*: Non-repetitive peak collector current

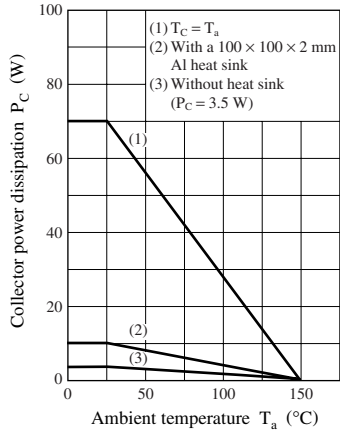
### ■ Electrical Characteristics $T_C = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base cutoff current (Emitter open)	$I_{\text{CBO}}$	$V_{\text{CB}} = 1\,000\text{ V}, I_{\text{E}} = 0$			50	$\mu\text{A}$
		$V_{\text{CB}} = 1\,700\text{ V}, I_{\text{E}} = 0$			1	mA
Emitter-base cutoff current (Collector open)	$I_{\text{EBO}}$	$V_{\text{EB}} = 7\text{ V}, I_{\text{C}} = 0$			50	$\mu\text{A}$
Forward current transfer ratio	$h_{\text{FE}}$	$V_{\text{CE}} = 5\text{ V}, I_{\text{C}} = 11\text{ A}$	6		12	—
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 11\text{ A}, I_{\text{B}} = 2.75\text{ A}$			3	V
Base-emitter saturation voltage	$V_{\text{BE(sat)}}$	$I_{\text{C}} = 11\text{ A}, I_{\text{B}} = 2.75\text{ A}$			1.5	V
Transition frequency	$f_{\text{T}}$	$V_{\text{CE}} = 10\text{ V}, I_{\text{C}} = 0.1\text{ A}, f = 0.5\text{ MHz}$		3		MHz
Storage time	$t_{\text{stg}}$	$I_{\text{C}} = 11\text{ A}, \text{Resistance loaded}$			3.0	$\mu\text{s}$
Fall time	$t_{\text{f}}$	$I_{\text{B1}} = 2.75\text{ A}, I_{\text{B2}} = -5.5\text{ A}$			0.2	$\mu\text{s}$

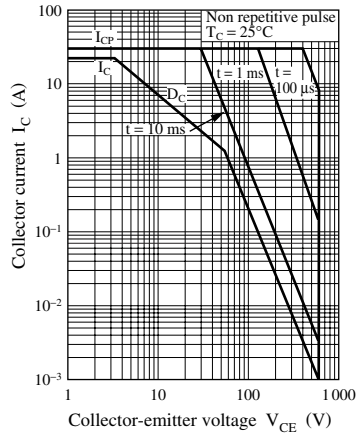
Note) Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.



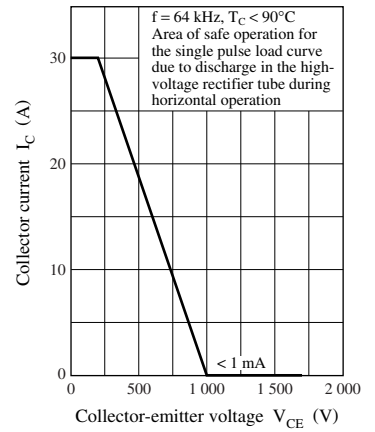
$P_C - T_a$



Safe operation area



Safe operation area (Horizontal operation)



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