

# 2SC5584

## 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 $T_C = 25^\circ\text{C}$

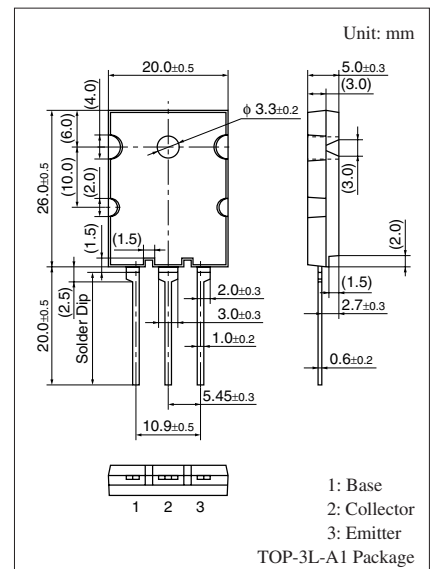
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	$V_{CBO}$	1 500	V
Collector-emitter voltage (E-B short)	$V_{CES}$	1 500	V
Collector-emitter voltage (Base open)	$V_{CEO}$	600	V
Emitter-base voltage (Collector open)	$V_{EBO}$	7	V
Base current	$I_B$	8	A
Collector current	$I_C$	20	A
Peak collector current *	$I_{CP}$	30	A
Collector power dissipation	$P_C$	150	W
	$T_a = 25^\circ\text{C}$	3.5	
Junction temperature	$T_j$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-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)	$I_{CBO}$	$V_{CB} = 1\ 000\ \text{V}, I_E = 0$			50	$\mu\text{A}$
		$V_{CB} = 1\ 500\ \text{V}, I_E = 0$			1	mA
Emitter-base cutoff current (Collector open)	$I_{EBO}$	$V_{EB} = 7\ \text{V}, I_C = 0$			50	$\mu\text{A}$
Forward current transfer ratio	$h_{FE}$	$V_{CE} = 5\ \text{V}, I_C = 10\ \text{A}$	7		14	—
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	$t_{stg}$	$I_C = 10\ \text{A}, \text{Resistance loaded}$			2.7	$\mu\text{s}$
Fall time	$t_f$	$I_{B1} = 2.5\ \text{A}, I_{B2} = -5.0\ \text{A}$			0.2	$\mu\text{s}$

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



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