

2SC5440

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 (ASO)

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

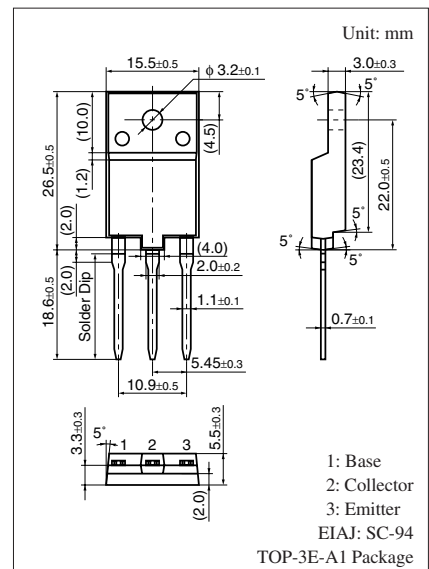
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	1 500	V
Collector-emitter voltage (E-B short)	V_{CES}	1 500	V
Collector-emitter voltage (Base open)	V_{CEO}	600	V
Emitter-base voltage (Collector open)	V_{EBO}	7	V
Base current	I_{B}	7.5	A
Collector current	I_{C}	15	A
Peak collector current *	I_{CP}	25	A
Collector power dissipation	P_{C}	60	W
		$T_{\text{a}} = 25^\circ\text{C}$	
Junction temperature	T_{j}	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

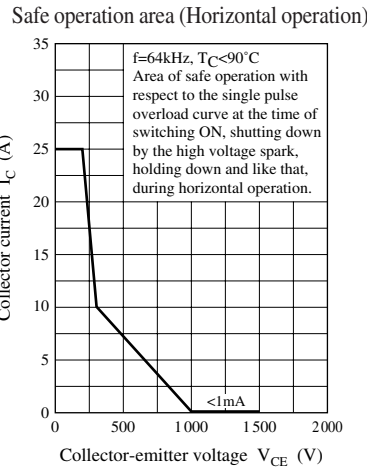
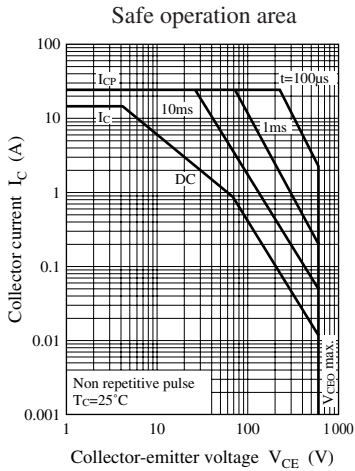
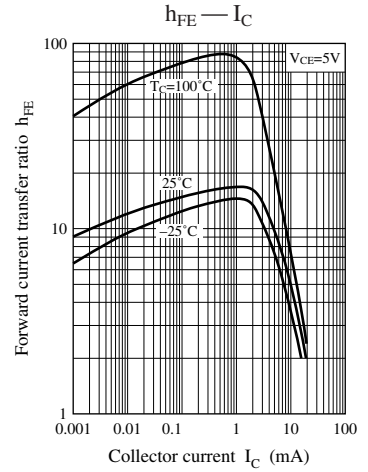
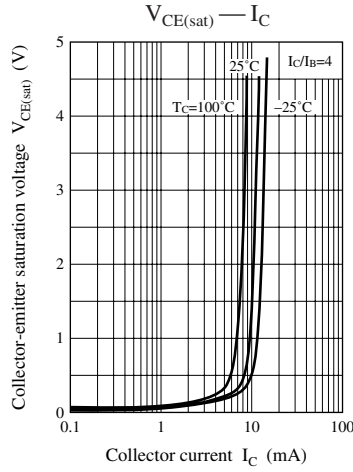
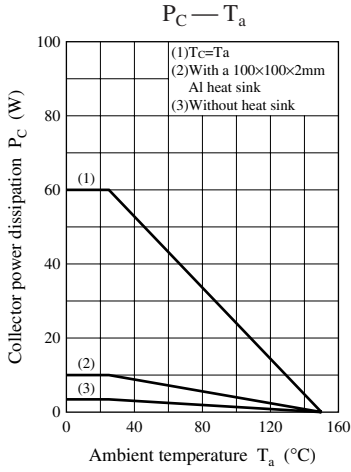
Note) *: Non-repetitive peak collector current

■ 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}	$V_{\text{CB}} = 1\,000\text{ V}, I_{\text{E}} = 0$			50	μA
		$V_{\text{CB}} = 1\,500\text{ V}, I_{\text{E}} = 0$			1	mA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{\text{EB}} = 7\text{ V}, I_{\text{C}} = 0$			50	μA
Forward current transfer ratio	h_{FE}	$V_{\text{CE}} = 5\text{ V}, I_{\text{C}} = 7.5\text{ A}$	5		9	—
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}} = 7.5\text{ A}, I_{\text{B}} = 1.88\text{ A}$			3	V
Base-emitter saturation voltage	$V_{\text{BE(sat)}}$	$I_{\text{C}} = 7.5\text{ A}, I_{\text{B}} = 1.88\text{ A}$			1.5	V
Transition frequency	f_{T}	$V_{\text{CE}} = 10\text{ V}, I_{\text{C}} = 0.1\text{ A}, f = 0.5\text{ MHz}$		3		MHz
Storage time	t_{stg}	$I_{\text{C}} = 7.5\text{ A}, \text{Resistance loaded}$			2.7	μs
Fall time	t_{f}	$I_{\text{B1}} = 1.88\text{ A}, I_{\text{B2}} = -3.76\text{ A}$			0.2	μs

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





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