

# 2SC5657

## 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 area of safe operation (ASO)

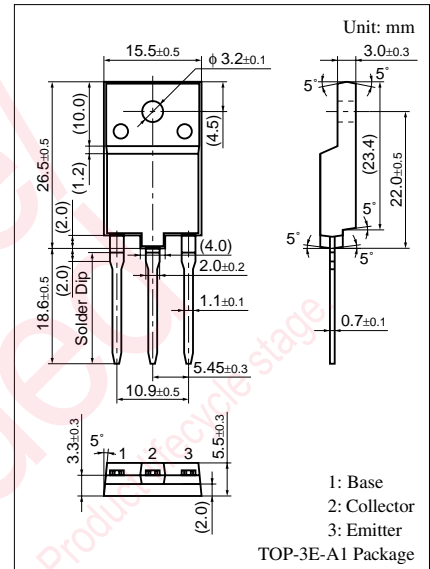
### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit	
Collector to base voltage	$V_{CBO}$	1 500	V	
Collector to emitter voltage	$V_{CES}$	1 500	V	
Emitter to base voltage	$V_{EBO}$	7	V	
Collector current	$I_C$	4	A	
Peak collector current *	$I_{CP}$	8	A	
Base current	$I_B$	2	A	
Collector power dissipation	$P_C$	$T_C = 25^\circ\text{C}$	40	W
		$T_a = 25^\circ\text{C}$	3	
Junction temperature	$T_j$	150	$^\circ\text{C}$	
Storage temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$	

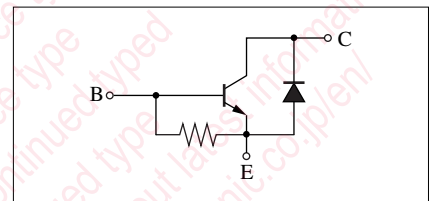
Note) \*: Non-respetitive peak collector current

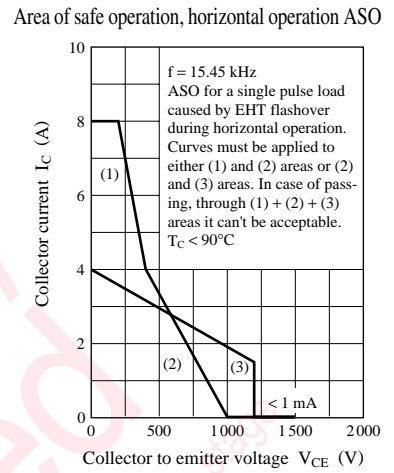
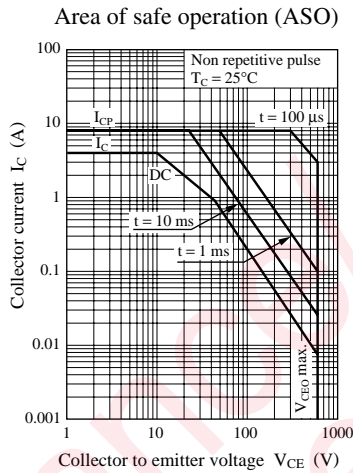
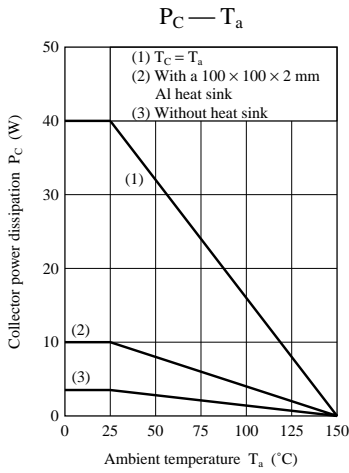
### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	$I_{CBO}$	$V_{CB} = 1\ 000\ \text{V}, I_E = 0$			50	$\mu\text{A}$
		$V_{CB} = 1\ 500\ \text{V}, I_E = 0$			1	mA
Emitter to base voltage	$V_{EBO}$	$I_E = 500\ \text{mA}, I_C = 0$	7			V
DC current gain	$h_{FE}$	$V_{CE} = 5\ \text{V}, I_C = 2\ \text{A}$	5		9	
Saturation voltage	$V_{CE(sat)}$	$I_C = 2\ \text{A}, I_B = 0.5\ \text{A}$			5	V
Saturation voltage	$V_{BE(sat)}$	$I_C = 2\ \text{A}, I_B = 0.5\ \text{A}$			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
Fall time	$t_f$	$I_C = 2\ \text{A}, R\text{-loaded}$			0.5	$\mu\text{s}$
Storage time	$t_{stg}$	$I_{B1} = 0.4\ \text{A}, I_{B2} = -0.8\ \text{A}$			5.0	$\mu\text{s}$
Diode forward voltage	$V_F$	$I_F = 2\ \text{A}$			-2	V



### Internal Connection





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