

2SC5597

Silicon NPN triple diffusion mesa type

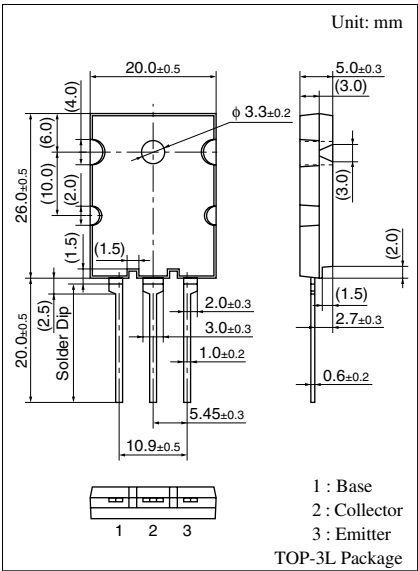
For horizontal deflection output

■ Features

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

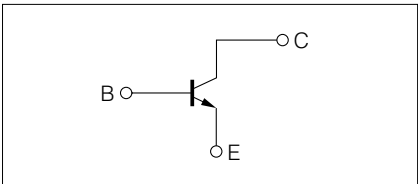
■ Absolute Maximum Ratings $T_C = 25^\circ\text{C}$

Parameter		Symbol	Rating	Unit
Collector to base voltage		V _{CBO}	1 700	V
Collector to emitter voltage		V _{CES}	1 700	V
		V _{CEO}	600	V
Emitter to base voltage		V _{EBO}	7	V
Peak collector current		I _{CP}	30	A
Collector current		I _C	22	A
Base current		I _B	11	A
Collector power dissipation	T _C = 25°C	P _C	200	W
	T _a = 25°C		3.5	
Junction temperature		T _j	150	°C
Storage temperature		T _{stg}	−55 to +150	°C



Marking Symbol: C5597

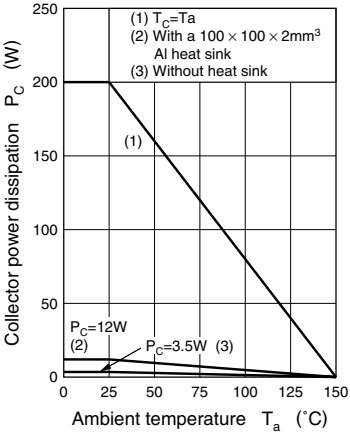
Internal Connection



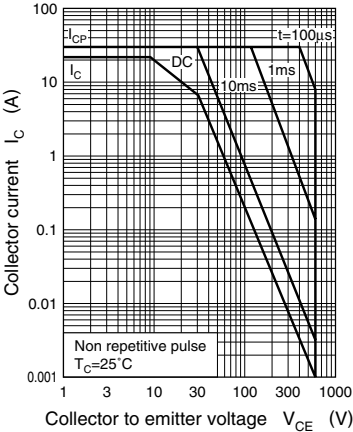
■ Electrical Characteristics $T_C = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector cutoff current	I_{CBO}	$V_{CB} = 1\ 000\ \text{V}, I_E = 0$			50	μA
		$V_{CB} = 1\ 700\ \text{V}, I_E = 0$			1	mA
Emitter cutoff current	I_{EBO}	$V_{EB} = 7\ \text{V}, I_C = 0$			50	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = 5\ \text{V}, I_C = 11\ \text{A}$	6		12	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 11\ \text{A}, I_B = 2.75\ \text{A}$			3	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 11\ \text{A}, I_B = 2.75\ \text{A}$			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}	$I_C = 11\ \text{A}, \text{Resistance loaded}$			3.0	μs
Fall time	t_f	$I_{B1} = 2.75\ \text{A}, I_{B2} = -5.5\ \text{A}$			0.2	μs

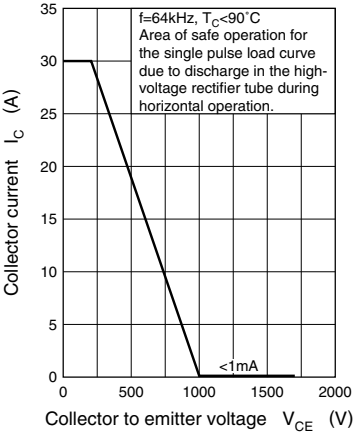
$P_C - T_a$



Area of safe operation (ASO)



Area of safe operation, horizontal operation ASO



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