

2SC4111

Silicon NPN Triple-Diffused Planar Type

Horizontal Deflection Output

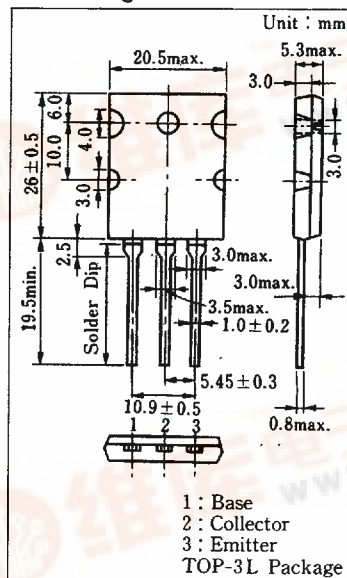
■ Features

- High speed switching
- High collector-base voltage (V_{CBO})
- Wide area of safety operation (ASO)
- Good linearity of DC current gain (h_{FE})

■ Absolute Maximum Ratings ($T_c=25^\circ\text{C}$)

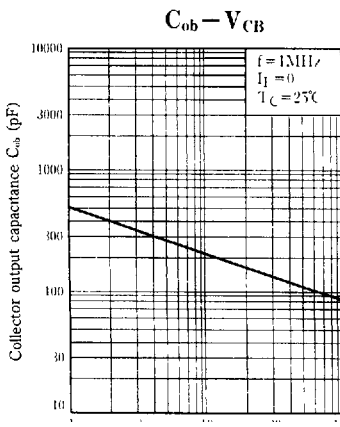
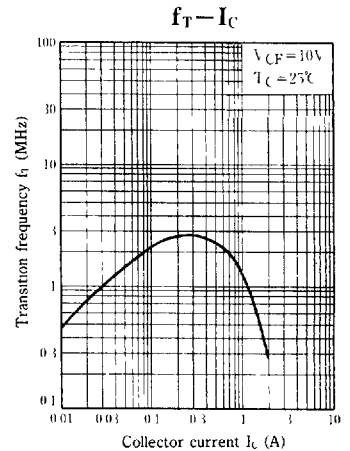
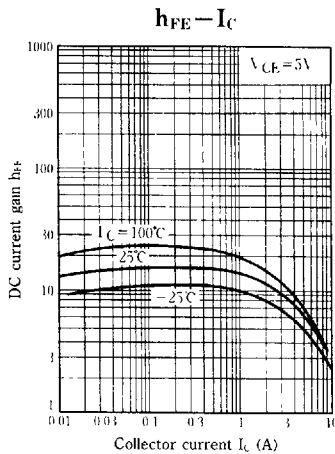
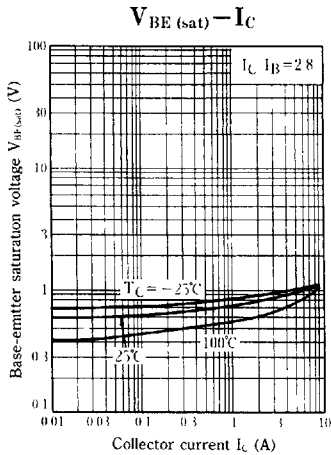
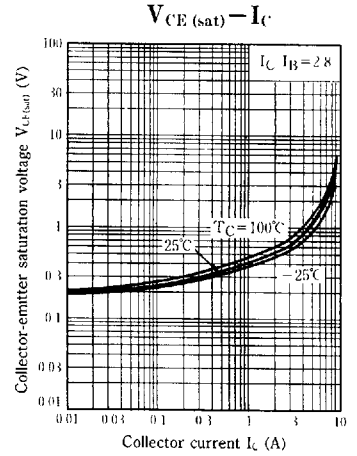
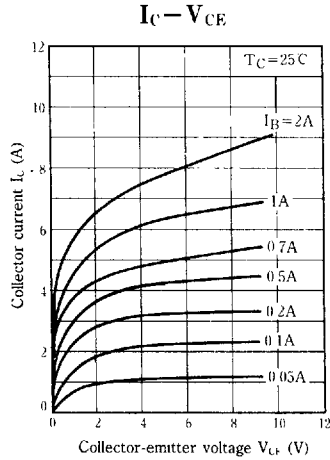
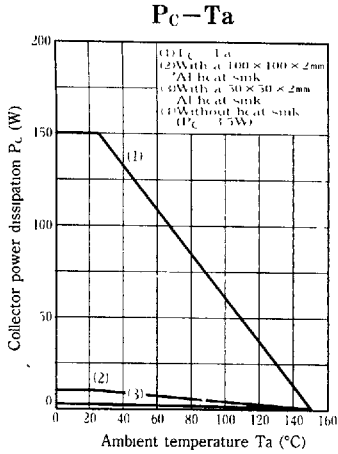
Item	Symbol	Value	Unit	
Collector-base voltage	V_{CBO}	1500	V	
Collector-emitter voltage	V_{CES}	1500	V	
	V_{CEO}	700	V	
Emitter-base voltage	V_{EBO}	7	V	
Peak collector current	I_{CP}	22	A	
Collector current	I_C	10	A	
Base current	I_B	3.5	A	
Collector power dissipation	P_C	$T_c=25^\circ\text{C}$	150	W
		$T_a=25^\circ\text{C}$	3.5	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$	

■ Package Dimensions

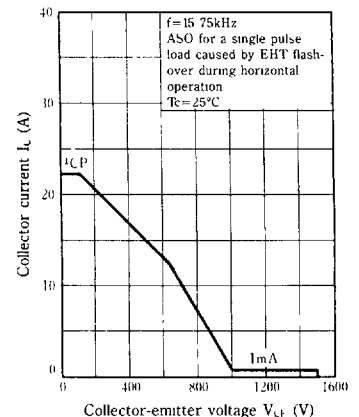
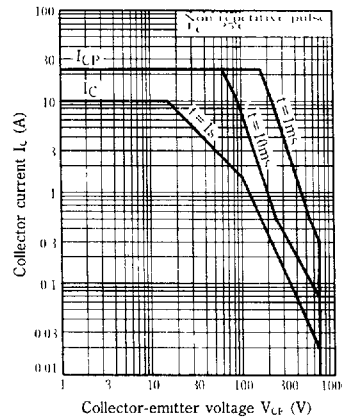


■ Electrical Characteristics ($T_c=25^\circ\text{C}$)

Item	Symbol	Condition	min.	typ.	max.	Unit
Collector cutoff current	I_{CBO}	$V_{CB}=750\text{V}, I_E=0$			10	μA
		$V_{CB}=1500\text{V}, I_E=0$			1	mA
Emitter-base voltage	V_{EBO}	$I_C=1\text{mA}, I_B=0$	7			V
DC current gain	h_{FE1}	$V_{CE}=5\text{V}, I_C=1\text{A}$	5			
	h_{FE2}	$V_{CE}=5\text{V}, I_C=7\text{A}$	3		8	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=7\text{A}, I_B=2.5\text{A}$			5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=7\text{A}, I_B=2.5\text{A}$			1.5	V
Transition frequency	f_T	$V_{CE}=10\text{V}, I_C=1\text{A}, f=0.5\text{MHz}$		2		MHz
Storage time	t_{stg}	$I_C=6\text{A}, L_{leak}=5\mu\text{H}$			12	μs
Collector current fall time	t_f	$I_{B1}=1.7\text{A}, I_{B2}=-1.7\text{A}$			0.6	μs



Safety operation area-forward bias (ASO) Safety operation area-reverse bias (ASO)



$R_{th(t)-t}$

