# 2SC4212

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### Silicon NPN triple diffusion planar type

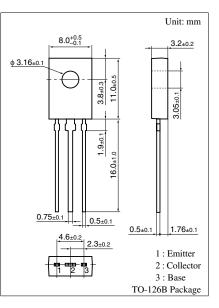
For color TV horizontal deflection driver

#### Features

- $\bullet$  High collector to emitter voltage  $V_{CEO}$
- TO-126B package which requires no insulation plate for installation to the heat sink

Absolute Maximum Ratings $T_{\rm C} = 25$ C							
Symbol	Rating	Unit					
V <sub>CBO</sub>	350	V					
V <sub>CEO</sub>	300	V					
V <sub>EBO</sub>	7.5	V					
I <sub>CP</sub>	400	mA					
I <sub>C</sub>	200	mA					
P <sub>C</sub>	1.2 *1	W					
	5 *2						
Tj	150	°C					
T <sub>stg</sub>	-55 to +150	°C					
	$\begin{tabular}{ c c c c } \hline Symbol \\ \hline V_{CBO} \\ \hline V_{CEO} \\ \hline V_{EBO} \\ \hline I_{CP} \\ \hline I_C \\ \hline P_C \\ \hline T_j \end{tabular}$	$\begin{tabular}{ c c c c } \hline Symbol & Rating \\ \hline V_{CBO} & 350 \\ \hline V_{CEO} & 300 \\ \hline V_{EBO} & 7.5 \\ \hline I_{CP} & 400 \\ \hline I_{C} & 200 \\ \hline P_{C} & 1.2 \\ \hline T_{j} & 150 \\ \hline \end{tabular}$					

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

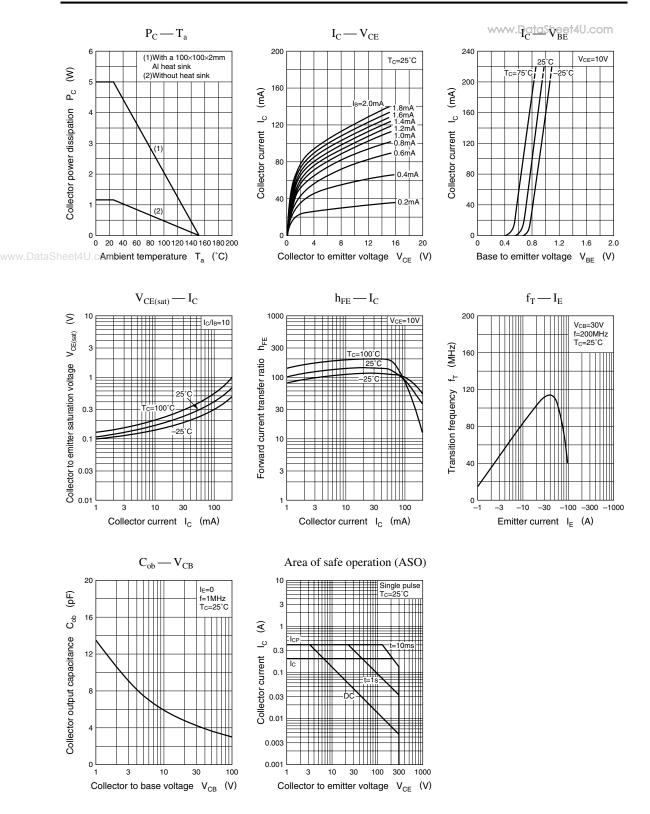


Note) \*1: Without heat sink

\*2: With a  $100 \times 100 \times 2$  mm A1 heat sink

#### **Electrical Characteristics** $T_C = 25^{\circ}C$

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector cutoff current	I <sub>CBO</sub>	$V_{CB} = 200 \text{ V}, I_E = 0$			2	μA
Emitter cutoff current	I <sub>EBO</sub>	$V_{EB} = 5 V, I_C = 0$			2	μΑ
Collector to base voltage	V <sub>CBO</sub>	$I_{\rm C} = 100 \ \mu A, \ I_{\rm E} = 0$	350			v
Collector to emitter voltage	V <sub>CEO</sub>	$I_{\rm C} = 5 \text{ mA}, I_{\rm B} = 0$	300			v
Emitter to base voltage	V <sub>EBO</sub>	$I_{\rm E} = 100 \ \mu A, \ I_{\rm C} = 0$	7.5			v
Forward current transfer ratio	h <sub>FE</sub>	$V_{CE} = 10 \text{ V}, \text{ I}_{C} = 10 \text{ mA}$	40		250	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = 50 \text{ mA}, I_{\rm B} = 5 \text{ mA}$			1	v
Transition frequency	$f_T$	$V_{CB} = 30 \text{ V}, I_E = -10 \text{ mA}, f = 200 \text{ MHz}$	50			MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = 50 \text{ V}, I_E = 0, f = 1 \text{ MHz}$			4.5	pF



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