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# 2SD2301

Silicon NPN Triple Diffused

## HITACHI

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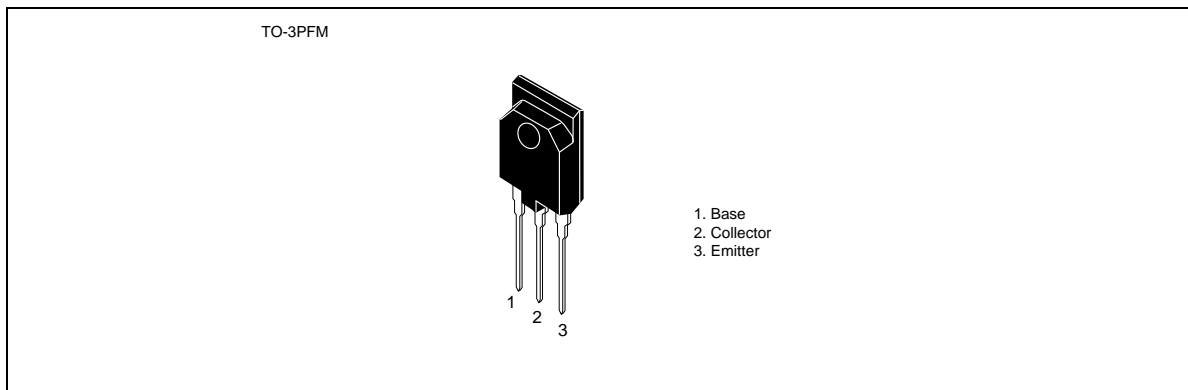
### Application

CTV horizontal deflection output

### Features

- High breakdown voltage  
 $V_{CBO} = 1500 \text{ V}$

### Outline



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## 2SD2301

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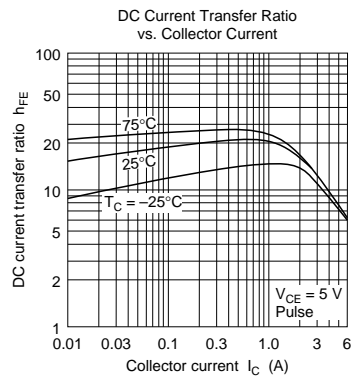
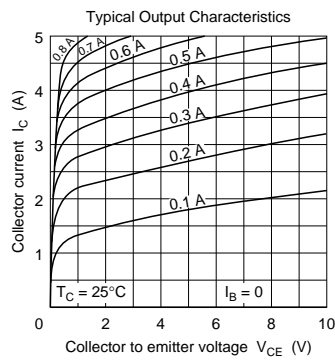
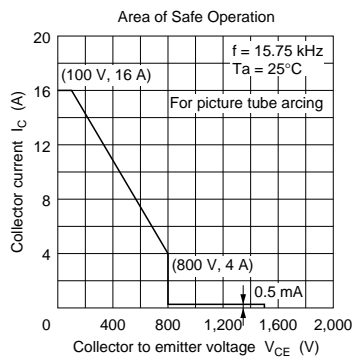
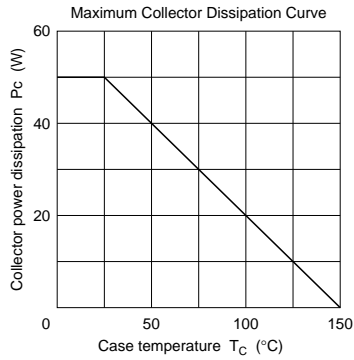
### Absolute Maximum Ratings (Ta = 25°C)

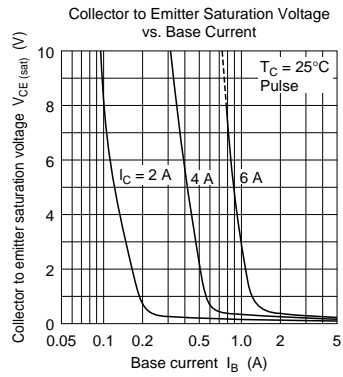
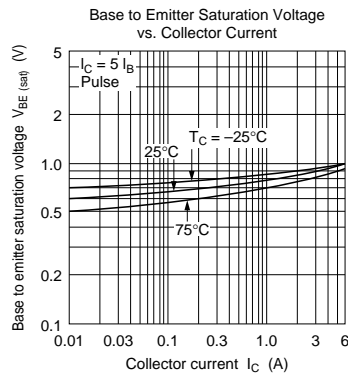
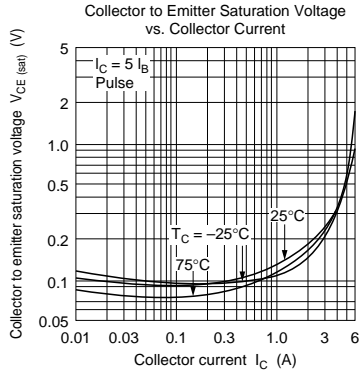
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	1500	V
Collector to emitter voltage	$V_{CEO}$	800	V
Emitter to base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	6	A
Collector peak current	$I_{C(peak)}$	7	A
Collector surge current	$I_{C(surge)}$	16	A
Collector power dissipation	$P_C^{*1}$	50	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

Note: 1. Value at  $T_C = 25^\circ\text{C}$ .

### Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	800	—	—	V	$I_C = 10\text{ mA}$ , $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10\text{ mA}$ , $I_C = 0$
Collector cutoff current	$I_{CES}$	—	—	500	$\mu\text{A}$	$V_{CE} = 1500\text{ V}$ , $R_{BE} = 0$
DC current transfer ratio	$h_{FE}$	—	—	30		$V_{CE} = 5\text{ V}$ , $I_C = 1\text{ A}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	5	V	$I_C = 5\text{ A}$ , $I_B = 1\text{ A}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	1.5	V	$I_C = 5\text{ A}$ , $I_B = 1\text{ A}$
Fall time	$t_f$	—	—	0.8	$\mu\text{s}$	$I_{CP} = 5\text{ A}$ , $I_{B1} = 1\text{ A}$ , $I_{B2} \approx -2\text{ A}$





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