

2SD2296

**Silicon NPN Triple Diffused
CTV Horizontal Deflection Output**

Feature

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

Absolute Maximum Ratings (Ta = 25°C)

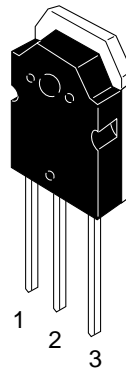
Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	1500	V
Collector to emitter voltage	V_{CEO}	800	V
Emitter to base voltage	V_{EBO}	6	V
Collector current	I_C	5	A
Collector peak current	$i_{C(\text{peak})}$	6	A
Collector surge current	$i_{C(\text{surge})}$	16	A
Collector power dissipation	P_C^{*1}	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)

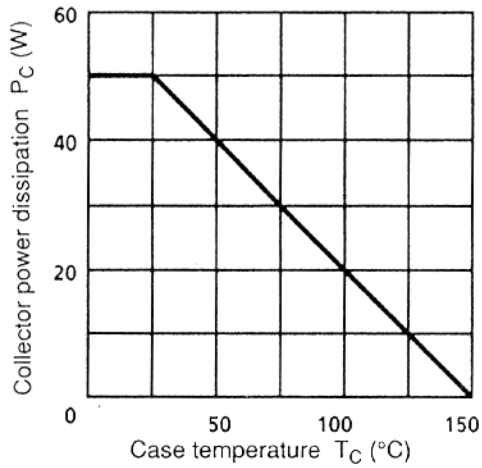
Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	800	—	—	V	$I_C = 10 \text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	6	—	—	V	$I_E = 10 \text{ mA}$, $I_C = 0$
Collector cutoff current	I_{CES}	—	—	500	μA	$V_{CE} = 1500 \text{ V}$, $R_{BE} = 0$
DC current transfer ratio	h_{FE}	—	—	30		$V_{CE} = 5 \text{ V}$, $I_C = 1 \text{ A}$
Collector to emitter saturation voltage	$V_{CE(\text{sat})}$	—	—	5	V	$I_C = 4.5 \text{ A}$, $I_B = 1.2 \text{ A}$
Base to emitter saturation voltage	$V_{BE(\text{sat})}$	—	—	1.5	V	$I_C = 4.5 \text{ A}$, $I_B = 1.2 \text{ A}$
Fall time	t_f	—	—	0.8	μs	$I_{CP} = 4 \text{ A}$, $I_{B1} = 0.8 \text{ A}$, $I_{B2} \approx -1.5 \text{ A}$

TO-3P

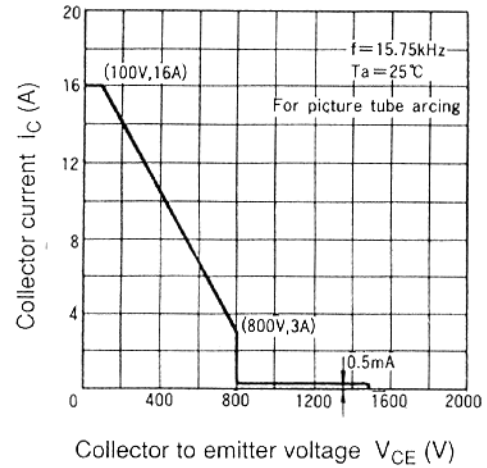


1. Base
2. Collector
3. Emitter

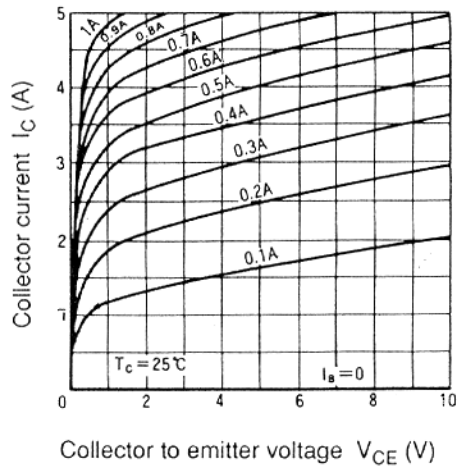
Maximum Collector Power Dissipation Curve



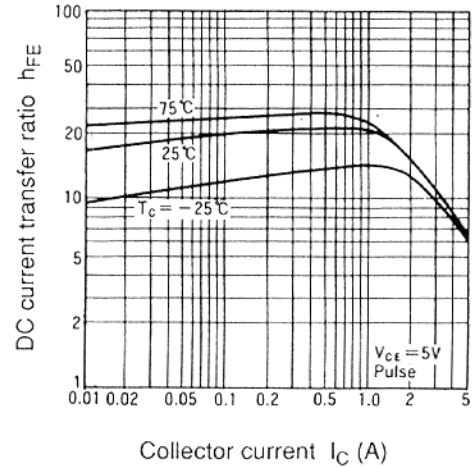
Area of Safe Operation



Typical Output Characteristics

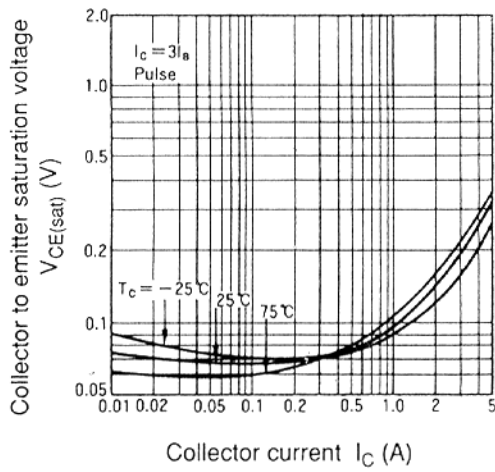


DC Current Transfer Ratio vs. Collector Current

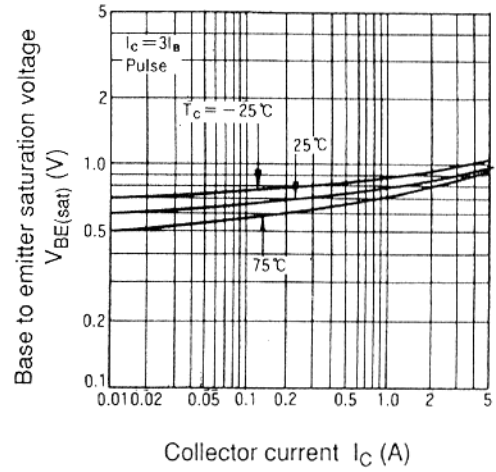


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Collector to Emitter Saturation Voltage vs. Collector Current



Base to Emitter Saturation Voltage vs. Collector Current



Collector to Emitter Saturation Voltage vs. Base Current

