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# **2SC4742**

Silicon NPN Triple Diffused

**HITACHI**

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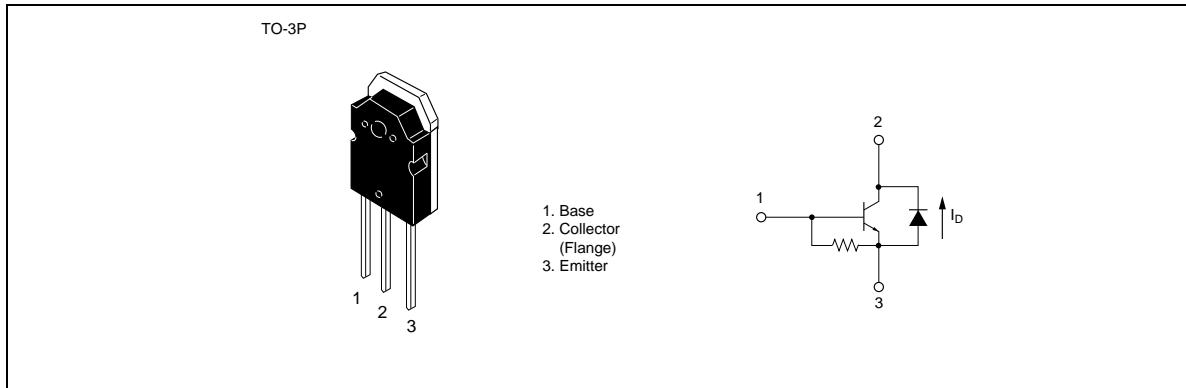
## **Application**

Character display horizontal deflection output

## **Feature**

- High breakdown voltage  
 $V_{CES} = 1500$  V
- Built-in damper diode type

## **Outline**



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

Item	Symbol	Ratings	Unit
Collector to emitter voltage	V <sub>CES</sub>	1500	V
Emitter to base voltage	V <sub>EBO</sub>	6	V
Collector current	I <sub>C</sub>	6	A
Collector peak current	I <sub>C(peak)</sub>	7	A
Collector surge current	I <sub>C(surge)</sub>	16	A
Collector power dissipation	P <sub>C</sub> * <sup>1</sup>	50	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C
C to E diode forward current	I <sub>D</sub>	7	A

Note: 1. Value at T<sub>c</sub> = 25°C.

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

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	6	—	—	V	I <sub>E</sub> = 400 mA, I <sub>C</sub> = 0
Collector cutoff current	I <sub>CES</sub>	—	—	500	μA	V <sub>CE</sub> = 1500 V, R <sub>BE</sub> = 0
DC current transfer ratio	h <sub>FE</sub>	—	—	25		V <sub>CE</sub> = 5 V, I <sub>C</sub> = 1 A
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	—	—	2.0	V	I <sub>C</sub> = 5 A, I <sub>B</sub> = 1.25 A
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	—	—	1.5	V	I <sub>C</sub> = 5 A, I <sub>B</sub> = 1.25 A
C to E diode forward voltage	V <sub>ECF</sub>	—	—	2.0	V	I <sub>F</sub> = 6 A
Fall time	t <sub>f</sub>	—	—	0.4	μs	I <sub>CP</sub> = 5 A, I <sub>B1</sub> = 1 A, I <sub>B2</sub> = -2 A