

## 2SD1114K

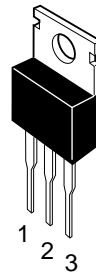
Silicon NPN Triple Diffused  
High Voltage Switching, Igniter

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

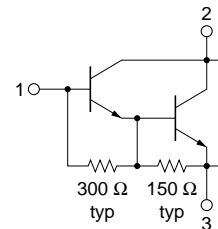
Item	Symbol	Rating	Unit
Collector to base voltage	V <sub>CBO</sub>	400	V
Collector to emitter voltage	V <sub>CEO</sub>	300	V
Emitter to base voltage	V <sub>EBO</sub>	7	V
Collector current	I <sub>C</sub>	6	A
Collector peak current	i <sub>C(peak)</sub>	10	A
Collector power dissipation	P <sub>C</sub> <sup>*1</sup>	50	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C

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

TO-220AB



1. Base
2. Collector (Flange)
3. Emitter



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

Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	V <sub>(BR)CBO</sub>	400	—	—	V	I <sub>C</sub> = 0.1 mA, I <sub>E</sub> = 0
Collector to emitter sustain voltage	V <sub>CEO(sus)</sub>	300	—	—	V	I <sub>C</sub> = 4 A, PW = 50 μs, f = 50 Hz, L = 10 mH
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	7	—	—	V	I <sub>E</sub> = 50 mA, I <sub>C</sub> = 0
Collector cutoff current	I <sub>CEO</sub>	—	—	100	μA	V <sub>CE</sub> = 300 V, R <sub>BE</sub> = ∞
DC current transfer ratio	h <sub>FE</sub>	500	—	—		V <sub>CE</sub> = 2 V, I <sub>C</sub> = 4 A <sup>*1</sup>
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	—	—	1.5	V	I <sub>C</sub> = 4 A, I <sub>B</sub> = 40 mA <sup>*1</sup>
Base to emitter saturation voltage	V <sub>BE(sat)</sub>	—	—	2.0	V	
Turn on time	t <sub>on</sub>	—	2.0	—	μs	I <sub>C</sub> = 4 A, I <sub>B1</sub> = -I <sub>B2</sub> = 40 mA
Turn off time	t <sub>off</sub>	—	23	—	μs	

Note: 1. Pulse Test.

See characteristics curves of 2SD991K.

## 2SD1114(K)

