

2SD1114K

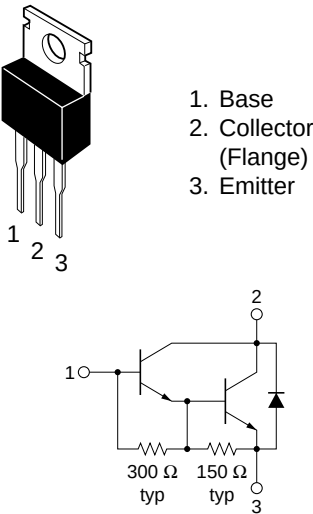
Silicon NPN Triple Diffused
High Voltage Switching, Igniter

Absolute Maximum Ratings (Ta = 25°C)

Item	Symbol	Rating	Unit
Collector to base voltage	V_{CBO}	400	V
Collector to emitter voltage	V_{CEO}	300	V
Emitter to base voltage	V_{EBO}	7	V
Collector current	I_C	6	A
Collector peak current	$i_{C(peak)}$	10	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 $T_C = 25^{\circ}C$.

TO-220AB



Electrical Characteristics (Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test condition
Collector to base breakdown voltage	$V_{(BR)CBO}$	400	—	—	V	$I_C = 0.1\text{ mA}, I_E = 0$
Collector to emitter sustain voltage	$V_{CEO(sus)}$	300	—	—	V	$I_C = 4\text{ A}, PW = 50\text{ }\mu s, f = 50\text{ Hz}, L = 10\text{ mH}$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	7	—	—	V	$I_E = 50\text{ mA}, I_C = 0$
Collector cutoff current	I_{CEO}	—	—	100	μA	$V_{CE} = 300\text{ V}, R_{BE} = \infty$
DC current transfer ratio	h_{FE}	500	—	—		$V_{CE} = 2\text{ V}, I_C = 4\text{ A}^{*1}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.5	V	$I_C = 4\text{ A}, I_B = 40\text{ mA}^{*1}$
Base to emitter saturation voltage	$V_{BE(sat)}$	—	—	2.0	V	
Turn on time	t_{on}	—	2.0	—	μs	$I_C = 4\text{ A}, I_{B1} = -I_{B2} = 40\text{ mA}$
Turn off time	t_{off}	—	23	—	μs	

Note: 1. Pulse Test.

See characteristics curves of 2SD991K.

2SD1114(K)

