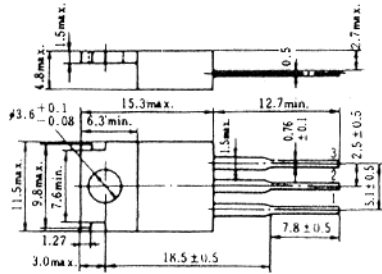
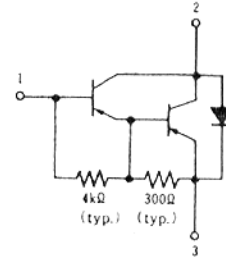


# 2SB765 (K)

SILICON PNP TRIPLE DIFFUSED  
MEDIUM SPEED AND POWER SWITCHING  
COMPLEMENTARY PAIR WITH 2SD864 (K)



1. Base
  2. Collector (Flange)
  3. Emitter
- (Dimensions in mm)



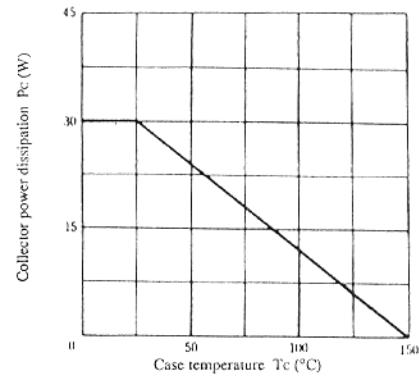
(JEDEC TO-220AB)

### ■ ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Item	Symbol	2SB765 (K)	Unit
Collector to base voltage	V <sub>CB0</sub>	-120	V
Collector to emitter voltage	V <sub>CEO</sub>	-120	V
Emitter to base voltage	V <sub>EBO</sub>	-7	V
Collector current	I <sub>C</sub>	-3	A
Collector peak current	i <sub>C(peak)</sub>	-6	A
Collector power dissipation	P <sub>C*</sub>	30	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>sig</sub>	-55 to +150	°C

\* Value at T<sub>C</sub> = 25°C

### MAXIMUM COLLECTOR DISSIPATION CURVE



### ■ ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -25mA, R <sub>BE</sub> = ∞	-120	—	—	V
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -50mA, I <sub>C</sub> = 0	-7	—	—	V
Collector cutoff current	I <sub>CBO</sub>	V <sub>CB</sub> = -120V, I <sub>E</sub> = 0	—	—	-100	μA
	I <sub>CEO</sub>	V <sub>CE</sub> = -100V, R <sub>BE</sub> = ∞	—	—	-10	μA
DC current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = -3V, I <sub>C</sub> = -1.5A*	1000	—	20000	
Collector to emitter saturation voltage	V <sub>CE(sat)1</sub>	I <sub>C</sub> = -1.5A, I <sub>B</sub> = -3mA*	—	—	-1.5	V
	V <sub>CE(sat)2</sub>	I <sub>C</sub> = -3A, I <sub>B</sub> = -30mA*	—	—	-3.0	V
Base to emitter saturation voltage	V <sub>BE(sat)1</sub>	I <sub>C</sub> = -1.5A, I <sub>B</sub> = -3mA*	—	—	-2.0	V
	V <sub>BE(sat)2</sub>	I <sub>C</sub> = -3A, I <sub>B</sub> = -30mA*	—	—	-3.5	V
Turn on time	t <sub>on</sub>	I <sub>C</sub> = -1.5A, I <sub>B1</sub> = -I <sub>B2</sub> = -3mA	—	0.8	—	μs
Storage time	t <sub>sig</sub>		—	3.0	—	μs
Fall time	t <sub>f</sub>		—	1.5	—	μs

\* Pulse Test

**2SB765** 

