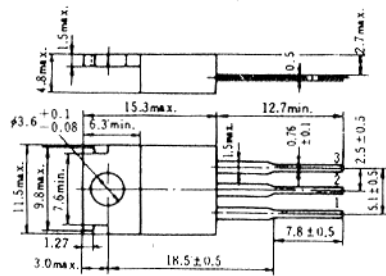
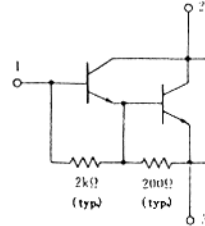


2SD970 (K)

SILICON NPN TRIPLE DIFFUSED
 MEDIUM SPEED AND POWER SWITCHING
 COMPLEMENTARY PAIR WITH 2SB791 (K)



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



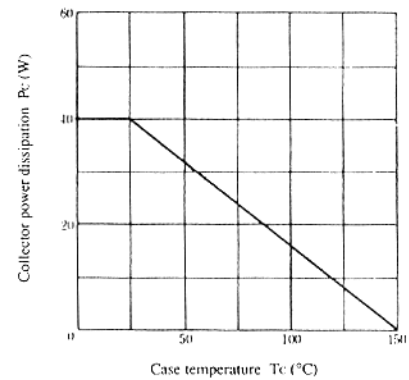
(JEDEC TO-220AB)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD970(K)	Unit
Collector to base voltage	V _{CB0}	120	V
Collector to emitter voltage	V _{CE0}	120	V
Emitter to base voltage	V _{EB0}	7	V
Collector current	I _C	8	A
Collector peak current	i _{C(peak)}	12	A
Collector power dissipation	P _C *	40	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

* Value at T_c = 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 _{(BR)CEO}	I _C = 25mA, R _{BE} = ∞	120	—	—	V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E = 50mA, I _C = 0	7	—	—	V
Collector cutoff current	I _{CB0}	V _{CB} = 120V, I _E = 0	—	—	100	μA
	I _{CE0}	V _{CE} = 100V, R _{BE} = ∞	—	—	10	μA
DC current transfer ratio	h _{FE}	V _{CE} = 3V, I _C = 4A*	1000	—	20000	
Collector to emitter saturation voltage	V _{CE(sat)1}	I _C = 4A, I _B = 8mA*	—	—	1.5	V
	V _{CE(sat)2}	I _C = 8A, I _B = 80mA*	—	—	3.0	V
Base to emitter saturation voltage	V _{BE(sat)1}	I _C = 4A, I _B = 8mA*	—	—	2.0	V
	V _{BE(sat)2}	I _C = 8A, I _B = 80mA*	—	—	3.5	V
Turn on time	t _{on}	I _C = 4A, I _{B1} = -I _{B2} = 8mA	—	0.4	—	μs
Storage time	t _{stg}		—	5.4	—	μs
Fall time	t _f		—	1.1	—	μs

* Pulse Test.

