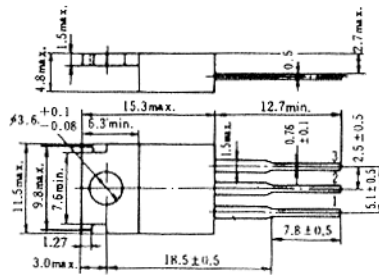


2SC2613 (K)

SILICON NPN TRIPLE DIFFUSED

HIGH VOLTAGE, HIGH SPEED AND HIGH POWER SWITCHING



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

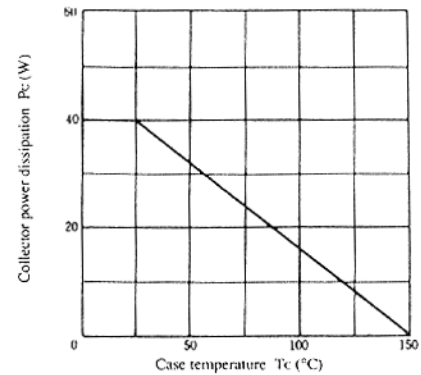
(JEDEC TO-220AB)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SC2613 (K)	Unit
Collector to base voltage	V _{CB0}	500	V
Collector to emitter voltage	V _{CEO}	400	V
Emitter to base voltage	V _{EBO}	7	V
Collector current	I _C	5	A
Collector peak current	i _{C(peak)}	10	A
Base current	I _B	2.5	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 sustain voltage	V _{CE0(sus)}	I _C = 0.2A, R _{BE} = ∞, L = 100mH	400	—	—	V
	V _{CEX(sus)}	I _C = 5A, I _{B1} = -I _{B2} = 1A V _{BE} = -5V, l = 180μH, Clamped	400	—	—	V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E = 10mA, I _C = 0	7	—	—	V
Collector cutoff current	I _{CB0}	V _{CB} = 400V, I _E = 0	—	—	100	μA
	I _{CEO}	V _{CE} = 350V, R _{BE} = ∞	—	—	100	μA
DC current transfer ratio	h _{FE1}	V _{CE} = 5V, I _C = 2.5A*	15	—	—	
	h _{FE2}	V _{CE} = 5V, I _C = 5A*	7	—	—	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 2.5A, I _B = 0.5A*	—	—	1.0	V
Base to emitter saturation voltage	V _{BE(sat)}	I _C = 2.5A, I _B = 0.5A*	—	—	1.5	V
Turn on time	t _{on}	I _C = 5A, I _{B1} = -I _{B2} = 1A, V _{CC} ≅ 150V	—	—	1.0	μs
Storage time	t _{stg}		—	1.2	2.5	μs
Fall time	t _f		—	—	1.0	μs

* Pulse Test

■ See characteristic curves of 2SC2613.