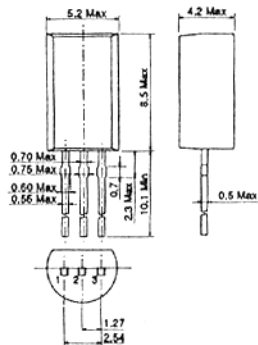
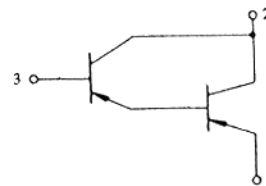


2SA1193(K)

SILICON PNP EPITAXIAL
HIGH GAIN AMPLIFIER



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

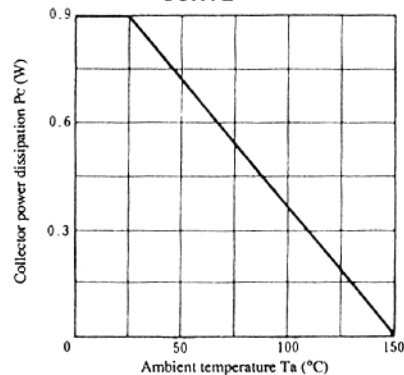


(JEDEC TO-92 MOD.)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SA1193(K)	Unit
Collector to base voltage	V _{CB0}	-60	V
Collector to emitter voltage	V _{CE0}	-60	V
Emitter to base voltage	V _{EB0}	-7	V
Collector current	I _C	-0.5	A
Collector peak current	i _{C(peak)}	-1.0	A
Collector power dissipation	P _C	0.9	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

MAXIMUM COLLECTOR DISSIPATION CURVE



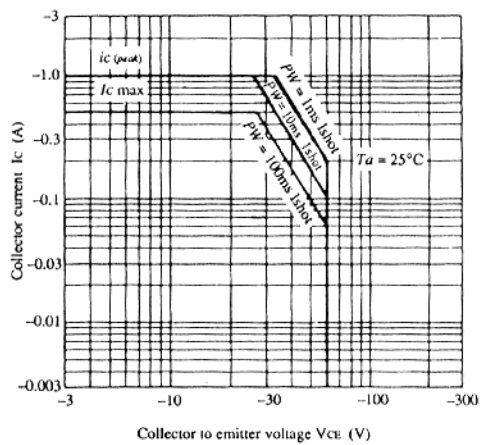
■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _C = -1mA, R _{BE} = ∞	-60	—	—	V
Collector cutoff current	I _{CBO}	V _{CB} = -60V, I _E = 0	—	—	-1.0	μA
Emitter cutoff current	I _{EBO}	V _{EB} = -7V, I _C = 0	—	—	-1.0	μA
DC current transfer ratio	h _{FE}	V _{CE} = -3V, I _C = -250mA*	2000	—	—	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = -250mA, I _B = -0.5mA*	—	—	-1.5	V
Base to emitter saturation voltage	V _{BE(sat)}		—	—	-2.0	V
Turn on time	t _{on}	I _C = -250mA	—	0.3	—	μs
Turn off time	t _{off}	I _{B1} = -I _{B2} = -0.5mA	—	0.9	—	μs

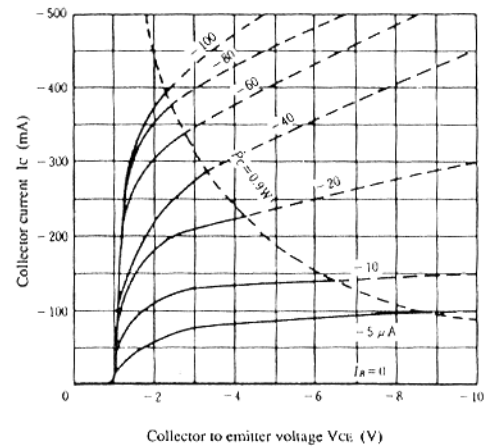
* Pulse Test

2SA1193(K)

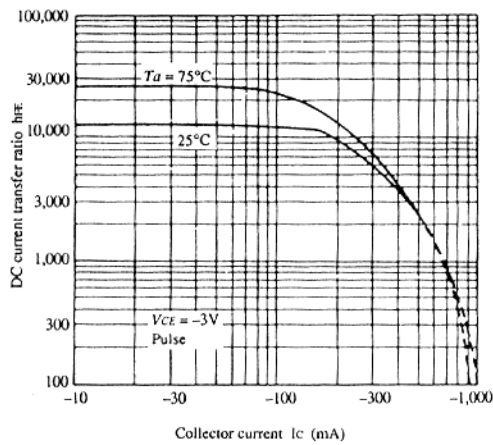
AREA OF SAFE OPERATION



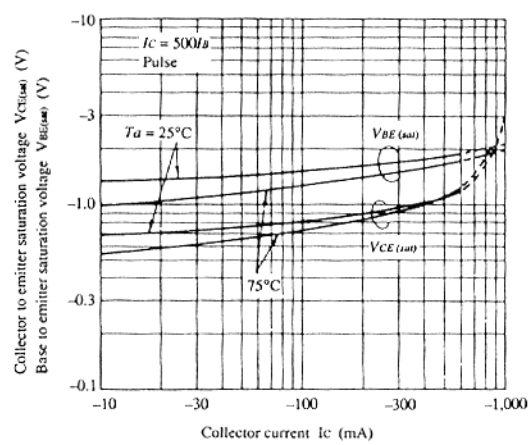
TYPICAL OUTPUT CHARACTERISTICS



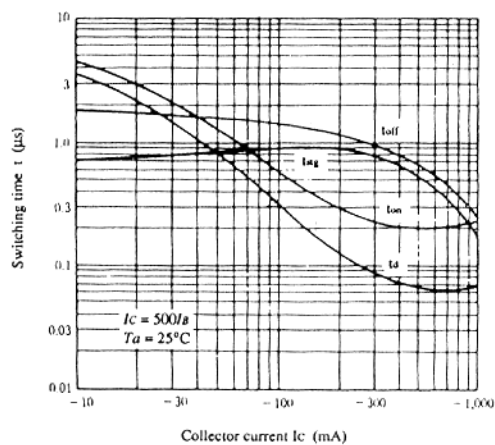
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



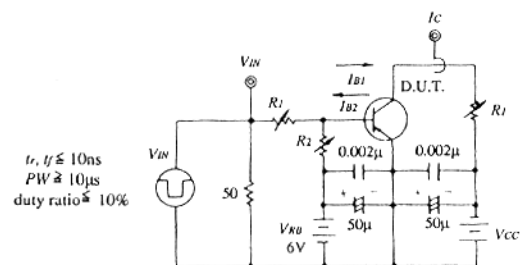
SATURATION VOLTAGE VS. COLLECTOR CURRENT



SWITCHING TIME VS. COLLECTOR CURRENT



SWITCHING TIME TEST CIRCUIT



RESPONSE WAVEFORM

