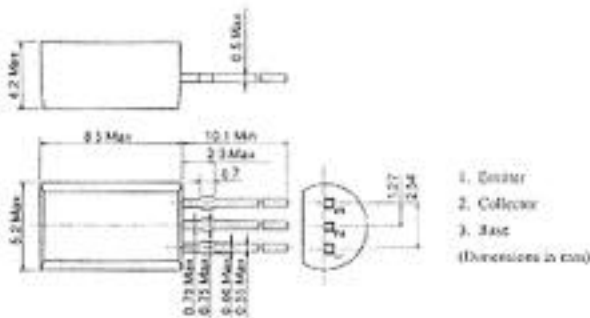


2SD1984

SILICON NPN EPITAXIAL
LOW FREQUENCY AMPLIFIER

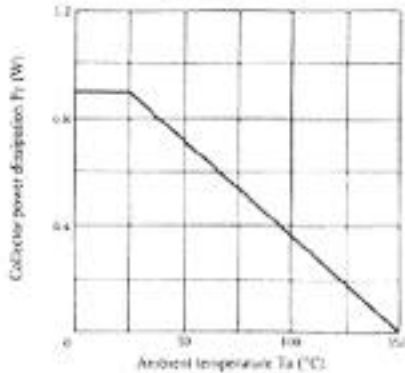


(JEDEC TO-92 MOD.)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1984	Unit
Collector to base voltage	V _{CB0}	30	V
Collector to emitter voltage	V _{CE0}	25	V
Emitter to base voltage	V _{EB0}	5	V
Collector current	I _C	1	A
Collector peak current	i _{C(pk)}	2	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

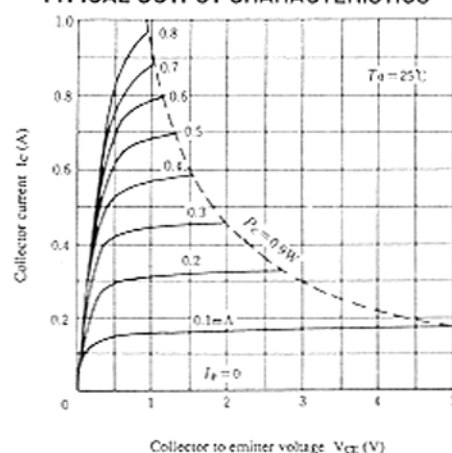


■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

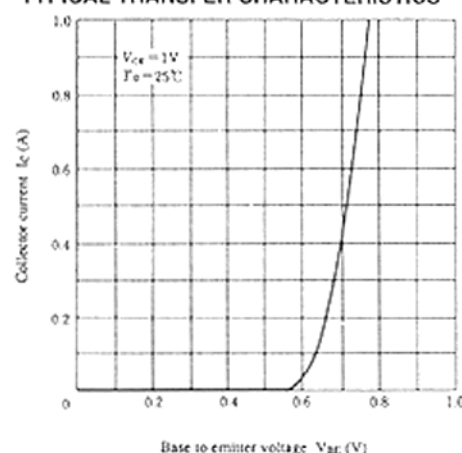
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	V _{BR(CBO)}	I _C = 10μA, I _E = 0	30	—	—	V
Collector to emitter breakdown voltage	V _{BR(CE0)}	I _C = 1mA, R _{BS} = ∞	25	—	—	V
Emitter to base breakdown voltage	V _{BR(EB0)}	I _E = 10μA, I _C = 0	5	—	—	V
Collector cutoff current	I _{CB0}	V _{CB} = 25V, I _E = 0	—	—	0.2	μA
	I _{CE0}	V _{CE} = 20V, R _{BE} = ∞	—	—	0.5	μA
Emitter cutoff current	I _{EB0}	V _{EB} = 5V, I _C = 0	—	—	0.2	μA
DC current transfer ratio	h _{FE1}	V _{CE} = 1V, I _C = 0.5A*	1000	—	3000	
	h _{FE2}	V _{CE} = 1V, I _C = 1A*	300	—	—	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 0.5A, I _B = 1mA*	—	—	0.5	V
Base to emitter saturation voltage	V _{BE(sat)}	I _C = 0.5A, I _B = 1mA*	—	—	1.2	V

* Pulse Test

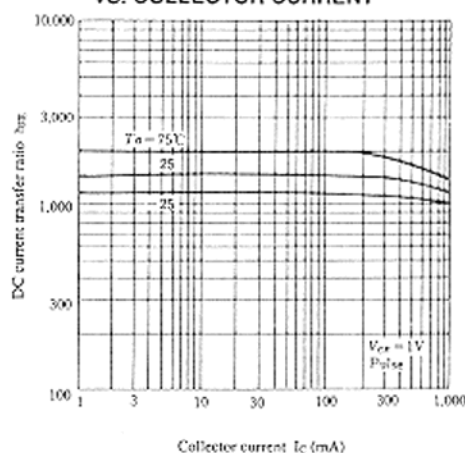
TYPICAL OUTPUT CHARACTERISTICS



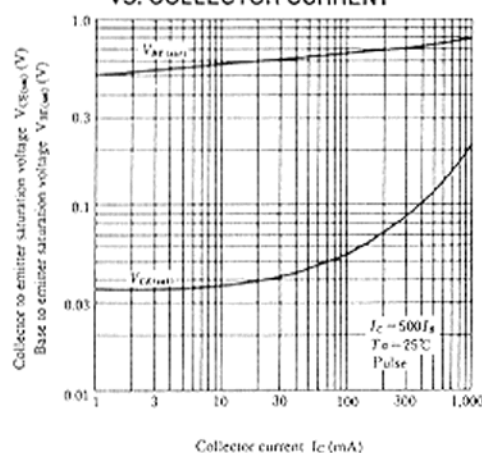
TYPICAL TRANSFER CHARACTERISTICS



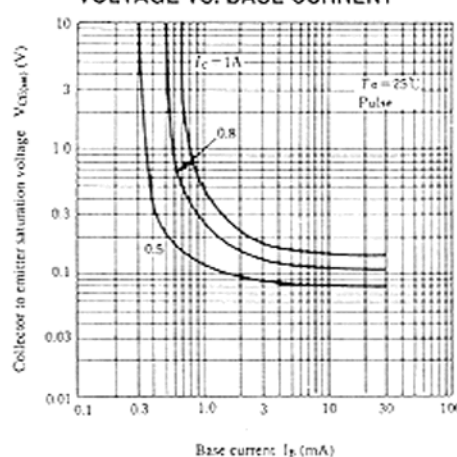
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



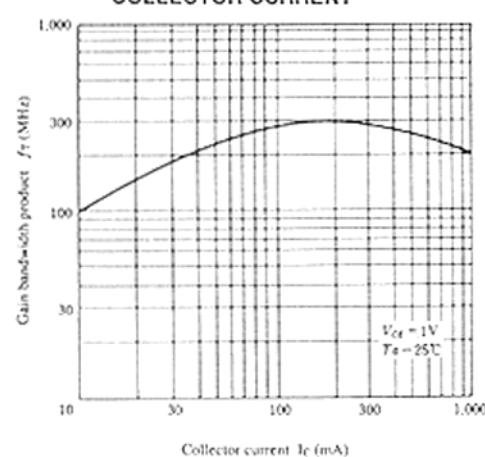
SATURATION VOLTAGE VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT



GAIN BANDWIDTH PRODUCT VS. COLLECTOR CURRENT



2SD1984

COLLECTOR OUTPUT CAPACITANCE VS.
COLLECTOR TO BASE VOLTAGE