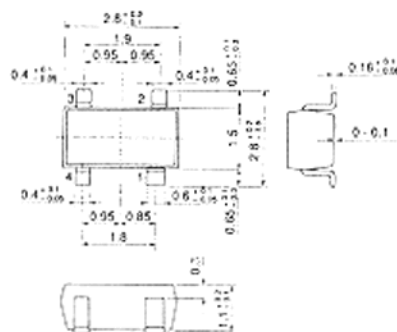


2SC3957

SILICON NPN PLANAR
HIGH GAIN AMPLIFIER



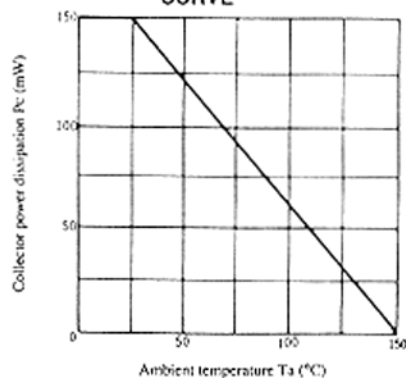
(MPAK-4)

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

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SC3957	Unit
Collector to base voltage	V _{CB0}	40	V
Collector to emitter voltage	V _{CE0}	30	V
Emitter to base voltage	V _{EB0}	10	V
Collector current	I _C	300	mA
Collector peak current	i _{C(peak)}	500	mA
Collector power dissipation	P _C	150	mW
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} = ∞	30	—	—	V
Collector cutoff current	I _{CB0}	V _{CB} = 30V, I _E = 0	—	—	100	nA
Emitter cutoff current	I _{EB0}	V _{EB} = 10V, I _C = 0	—	—	100	nA
DC current transfer ratio	h _{FE1} *	I _C = 10mA, V _{CE} = 5V**	2,000	—	100,000	
	h _{FE2} *	I _C = 100mA, V _{CE} = 5V**	3,000	—	—	
	h _{FE3} *	I _C = 400mA, V _{CE} = 5V**	3,000	—	—	
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = 100mA, I _B = 0.1mA**	—	—	1.5	V
Base to emitter saturation voltage	V _{BE(sat)}	I _C = 100mA, I _B = 0.1mA**	—	—	2.0	V

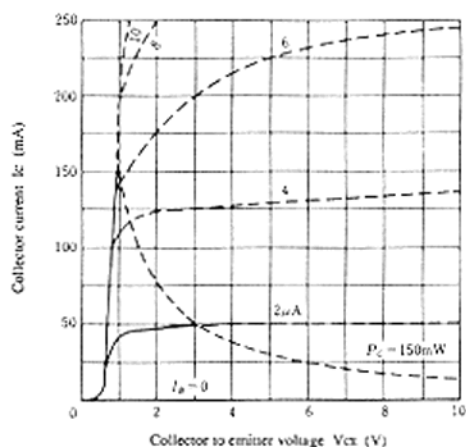
* The 2SC3957 is grouped by h_{FE} as follows.

** Pulse Test

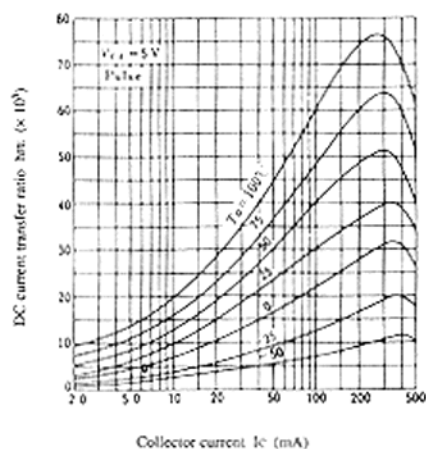
Mark	G1A	G1B
h _{FE1}	2,000 to 100,000	5,000 to 100,000
h _{FE2}	3,000 min	10,000 min
h _{FE3}	3,000 min	10,000 min

2SC3957

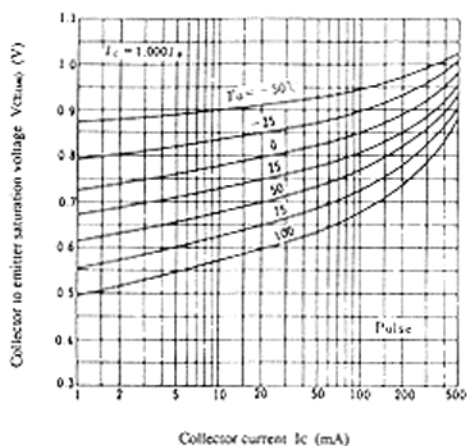
TYPICAL OUTPUT CHARACTERISTICS



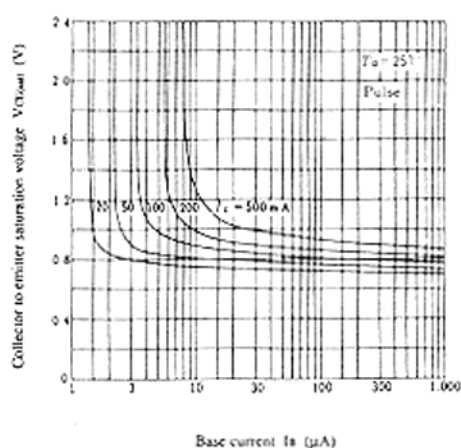
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. BASE CURRENT



BASE TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT

