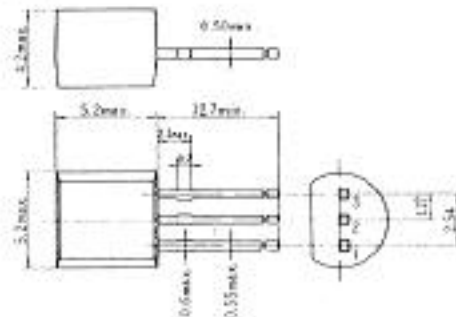


2SA673A (K)

SILICON PNP EPITAXIAL
LOW FREQUENCY AMPLIFIER
MEDIUM SPEED SWITCHING



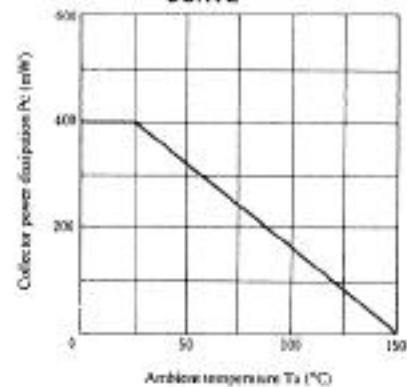
(JEDEC TO-92)

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

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SA673A (K)	Unit
Collector to base voltage	V _{CB0}	-50	V
Collector to emitter voltage	V _{CE0}	-50	V
Emitter to base voltage	V _{EB0}	-4	V
Collector current	I _C	-0.5	A
Collector power dissipation	P _C	0.4	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 _{BR0CB0}	I _C = -10μA, I _E = 0	-50	—	—	V
Collector to emitter breakdown voltage	V _{BR0CE0}	I _C = -1mA, R _{BE} = ∞	-50	—	—	V
Emitter to base breakdown voltage	V _{BR0EB0}	I _E = -10μA, I _C = 0	-4	—	—	V
Collector cutoff current	I _{CB0}	V _{CB} = -20V, I _E = 0	—	—	-0.5	μA
Emitter cutoff current	I _{EB0}	V _{EB} = -3V, I _C = 0	—	—	-0.5	μA
Base to emitter voltage	V _{BE}	V _{CE} = -3V, I _C = -10mA	—	-0.64	—	V
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = -150mA, I _B = -15mA**	—	-0.2	-0.6	V
Base to emitter saturation voltage	V _{BE(sat)}	I _C = -150mA, I _B = -15mA**	—	-0.87	—	V
DC current transfer ratio	h _{FE} *	V _{CE} = -3V, I _C = -10mA	60	—	320	
	h _{FE}	V _{CE} = -3V, I _C = -500mA**	10	—	—	
Gain bandwidth product	f _T	V _{CE} = -3V, I _C = -10mA	—	120	—	MHz
Turn on time	t _{on}	V _{CC} = -10.3V	—	0.3	—	μs
Turn off time	t _{off}	I _C = 10I _{B1} = -10I _{B2} = -10mA	—	0.6	—	μs
Storage time	t _{stg}	V _{CC} = -5V, I _C = I _{B1} = -I _{B2} = -20mA	—	0.4	—	μs

* The 2SA673A(K) is grouped by h_{FE} as follows.

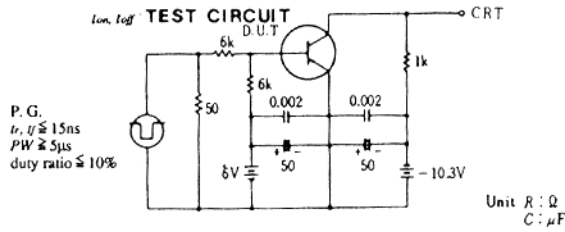
** Pulse Test

B	C	D
60 to 120	100 to 200	160 to 320

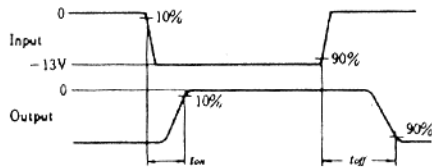
■ See 2SA673A except for the above - mentioned characteristic curves.

2SA673A(K)

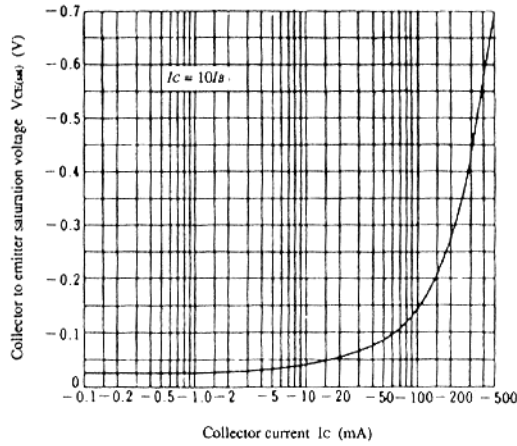
SWITCHING TIME TEST CIRCUIT



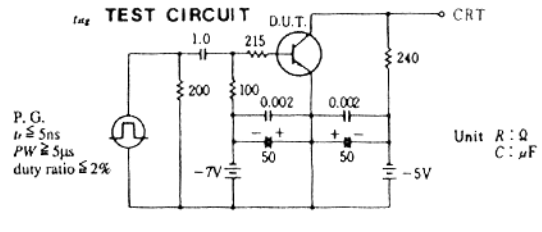
RESPONSE WAVEFORM



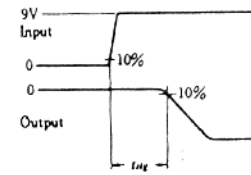
COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



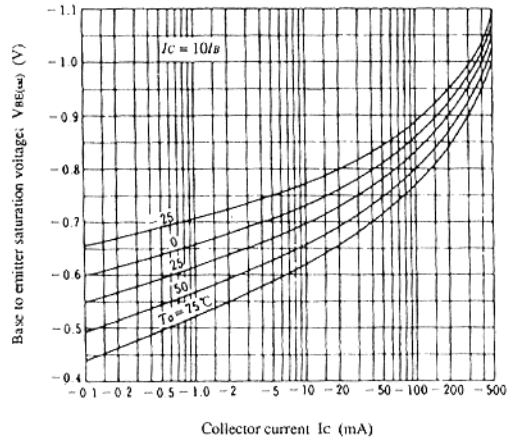
SWITCHING TIME TEST CIRCUIT



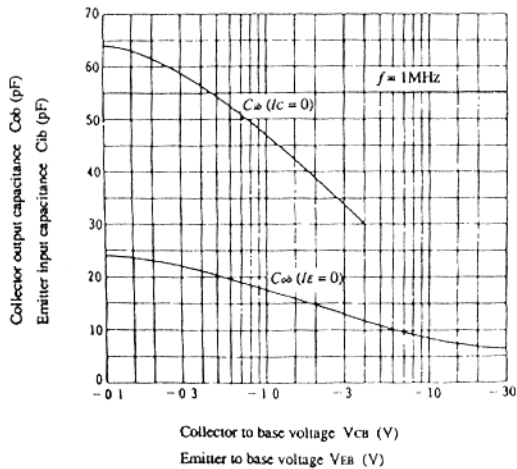
RESPONSE WAVEFORM



BASE TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



INPUT AND OUTPUT CAPACITANCE VS. VOLTAGE



SWITCHING TIME VS. COLLECTOR CURRENT

