

SILICON NPN TRANSISTOR EPITAXIAL PLANAR TYPE (PCT PROCESS)

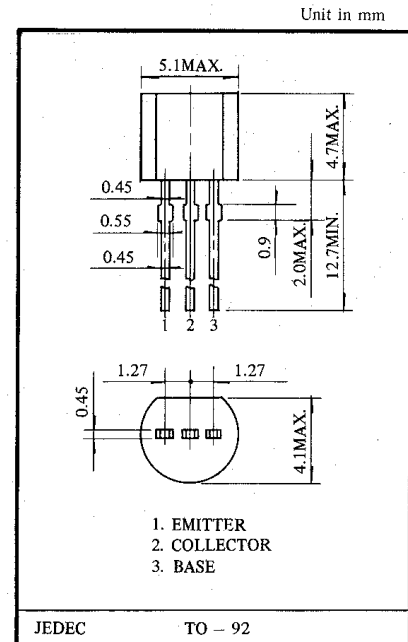
KTC 2120

APPLICATIONS

- Low Frequency Power Amplifiers
(B-Class Push-pull, $P_o=1W$)
- General Purpose Switching Circuits

FEATURES

- Excellent h_{FE} vs. Collector Current Characteristics
- $P_c=600mW$, $I_c=800mA$ max.
- $V_{CE(sat)}=0.5V$ max at $I_c=500mA$, $I_B=20mA$
- Complementary to the KTA 950



MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT	CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector - Base Voltage	V_{CB0}	35	V	Emitter Current	I_E	-800	mA
Collector - Emitter Voltage	V_{CE0}	30	V	Collector Power Dissipation	P_c	600	mW
Emitter - Base Voltage	V_{EB0}	5	V	Junction Temperature	T_j	150	$^\circ C$
Collector Current	I_c	800	mA	Storage Temperature Range	T_{stg}	-55~150	$^\circ C$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut off Current	I_{CB0}	$V_{CB}=35V, I_E=0$	-	-	100	nA
Emitter Cut off Current	I_{EB0}	$V_{EB}=5V, I_c=0$	-	-	100	nA
Collector - Emitter Breakdown Voltage	$V_{(BR)CE0}$	$I_c=10mA$	30	-	-	V
DC Current Gain	$h_{FE(1)}$	$V_{CE}=1V, I_c=100mA$	100	-	320	
	$h_{FE(2)}$	$V_{CE}=1V, I_c=700mA$	35	-	-	
Collector - Emitter Saturation Voltage	$V_{CE(sat)}$	$I_c=500mA, I_B=20mA$	-	-	0.5	V
Base - Emitter Voltage	V_{BE}	$V_{CE}=1V, I_c=10mA$	0.5	-	0.8	V
Transition Frequency	f_T	$V_{CE}=5V, I_c=10mA$	-	120	-	MHz
Output Capacitance	C_{ob}	$V_{CB}=10V, f=1MHz$	-	13	-	pF

NOTE: According to h_{FE} (1), Classified as follows

0	100 - 200	Y	160 - 320
---	-----------	---	-----------