

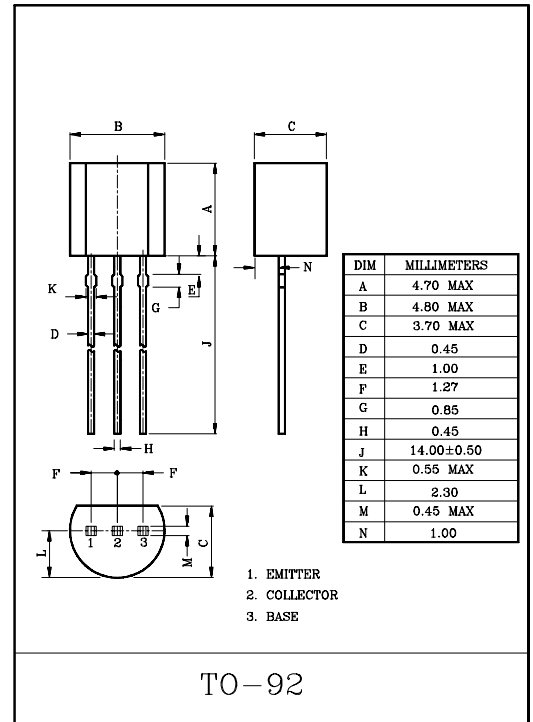
### LOW NOISE AMPLIFIER APPLICATION.

### FEATURES

- Excellent Linearity of  $h_{FE}$ 
  - :  $h_{FE(2)}=100(\text{Typ.})$  at  $V_{CE}=6V, I_C=150mA$
  - :  $h_{FE(I_C=0.1mA)}/h_{FE(I_C=2mA)}=0.95(\text{Typ.})$ .
- Low Noise :  $NF=0.2dB(\text{Typ.})$  at ( $f=1kHz$ ).
- Complementary to KTA1266L. (O,Y,GR class).

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	60	V
Collector-Emitter Voltage	$V_{CEO}$	50	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	150	mA
Emitter Current	$I_E$	-150	mA
Collector Power Dissipation	$P_C$	625	mW
Junction Temperature	$T_j$	150	$^\circ C$
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	$I_{CBO}$	$V_{CB}=60V, I_E=0$	-	-	0.1	$\mu A$	
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	$\mu A$	
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=6V, I_C=2mA$	70	-	700		
	$h_{FE(2)}$	$V_{CE}=6V, I_C=150mA$	25	100	-		
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$	-	0.1	0.25	V
	Base-Emitter	$V_{BE(sat)}$	$I_C=100mA, I_B=10mA$	-	-	1.0	
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=10mA$	80	-	-	MHz	
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	2.0	3.0	pF	
Base Intrinsic Resistance	$r_{bb'}$	$V_{CB}=10V, I_E=-1mA, f=30MHz$	-	50	-	$\Omega$	
Noise Figure	NF(1)	$V_{CE}=6V, I_C=0.1mA, R_g=10k\Omega, f=100Hz$	-	0.5	6.0	dB	
	NF(2)	$V_{CE}=6V, I_C=0.1mA, R_g=10k\Omega, f=1kHz$	-	0.2	3.0		

Note)  $h_{FE(1)}$  Classification O : 70~140, Y : 120~240, GR : 200~400, BL : 300~700