

LOW NOISE AMPLIFIER APPLICATION.

FEATURES

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

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

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	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V$, $I_C=0$	-	-	0.1	μA
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	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA$, $I_B=10mA$	-	0.1	0.25	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=100mA$, $I_B=10mA$	-	-	1.0	V
Transition Frequency	f_T	$V_{CE}=10V$, $I_C=1mA$	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	-	Ω
Noise Figure	NF(1)	$V_{CE}=6V$, $I_C=0.1mA$, $f=100Hz$, $R_g=10k\Omega$	-	0.5	6.0	dB
	NF(2)	$V_{CE}=6V$, $I_C=0.1mA$, $f=1kHz$, $R_g=10k\Omega$	-	0.2	3.0	

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