

LOW NOISE AMPLIFIER APPLICATION.  
HIGH VOLTAGE APPLICATION.

### FEATURES

- Low Noise.  
: NF=3dB(Typ.), Rg=100Ω, V<sub>CE</sub>=-6V, I<sub>C</sub>=-100μA, f=1kHz  
: NF=0.5dB(Typ.), Rg=1kΩ, V<sub>CE</sub>=-6V, I<sub>C</sub>=-100μA, f=1kHz.
- High DC Current Gain : h<sub>FE</sub>=200 ~ 700.
- High Voltage : V<sub>CEO</sub>=-120V.
- Low Pulse Noise. Low 1/f Noise.
- Complementary to KTC3200.

### MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V <sub>CBO</sub>	-120	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-120	V
Emitter-Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current	I <sub>C</sub>	-100	mA
Emitter Current	I <sub>E</sub>	100	mA
Collector Power Dissipation	P <sub>C</sub>	625	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55 ~ 150	°C



### ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I <sub>CBO</sub>	V <sub>CB</sub> =-120V, I <sub>E</sub> =0	-	-	-100	nA
Emitter Cut-off Current	I <sub>EBO</sub>	V <sub>EB</sub> =-5V, I <sub>C</sub> =0	-	-	-100	nA
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	-120	-	-	V
DC Current Gain	h <sub>FE</sub> (Note)	V <sub>CE</sub> =-6V, I <sub>C</sub> =-2mA	200	-	700	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-10mA, I <sub>B</sub> =-1mA	-	-	-0.3	V
Base-Emitter Voltage	V <sub>BE</sub>	V <sub>CE</sub> =-6V, I <sub>C</sub> =-2mA	-	-0.65	-	V
Transition Frequency	f <sub>T</sub>	V <sub>CE</sub> =-6V, I <sub>C</sub> =-1mA	-	100	-	MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =-10V, I <sub>E</sub> =0, f=1MHz	-	4.0	-	pF
Noise Figure	NF	V <sub>CE</sub> =-6V, I <sub>C</sub> =-100μA, f=10Hz, Rg=10kΩ	-	-	6.0	dB
		V <sub>CE</sub> =-6V, I <sub>C</sub> =-100μA, f=1kHz, Rg=10kΩ	-	-	2.0	
		V <sub>CE</sub> =-6V, I <sub>C</sub> =-100μA, f=1kHz, Rg=100Ω	-	3.0	-	

Note : h<sub>FE</sub> Classification GR:200 ~ 400, BL:350 ~ 700

# KTA1268

