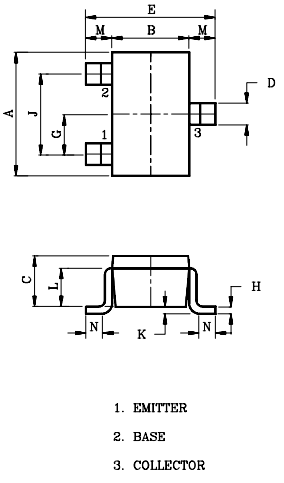
KTC4077

EPITAXIAL PLANAR NPN TRANSISTOR

LOW NOISE AMPLIFIER APPLICATION.

FEATURES

- High Voltage : V_{CEO}=120V.
- Excellent h_{FE} Linearity
  : h_{FE}(0.1mA)/h_{FE}(2mA)=0.95(Typ.).
- High h_{FE} : h_{FE}=200～700.
- Low Noise : NF=1dB(Typ.), 10dB(Max.).
- Complementary to KTA2017.



DIM	MILLIMETERS
A	2.00± 0.20
B	1.25± 0.15
C	0.90± 0.10
D	0.3+0.10/−0.05
E	2.10± 0.20
G	0.65
H	0.15+0.1/−0.06
J	1.30
K	0.00−0.10
L	0.70
M	0.42± 0.10
N	0.2 MIN

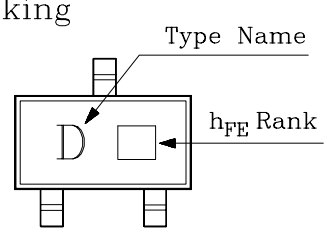
1. EMITTER
2. BASE
3. COLLECTOR

USM

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	120	V
Collector-Emitter Voltage	V_{CEO}	120	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	100	mA
Base Current	I_B	20	mA
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

Marking

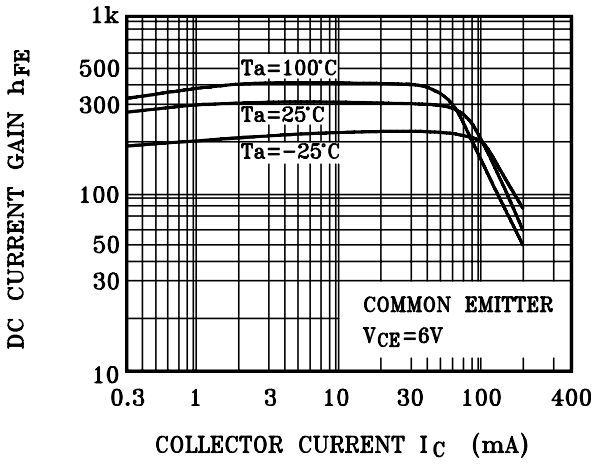


ELECTRICAL CHARACTERISTICS (Ta=25℃)

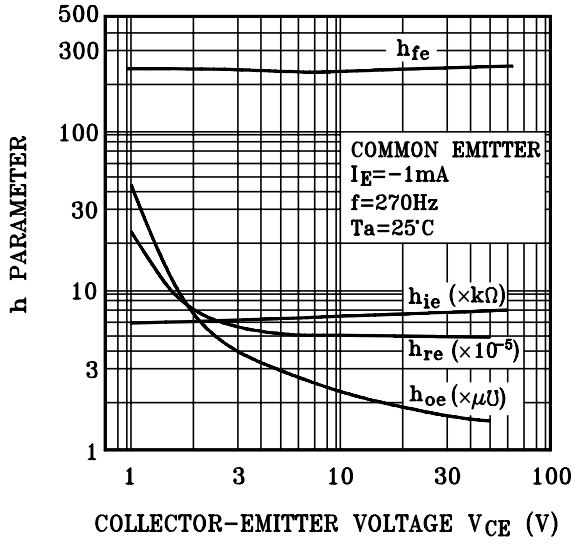
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=120V, I_E=0	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	0.1	μA
DC Current Gain	h_{FE} (Note)	V_{CE}=6V, I_C=2mA	200	-	700	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA	-	-	0.3	V
Transition Frequency	f_T	V_{CE}=6V, I_C=1mA	-	100	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	4.0	-	pF
Noise Figure	NF	V_{CE}=6V, I_C=0.1mA f=1kHz, Rg=10kΩ	-	1.0	10	dB

Note : h_{FE} Classification GR(6):200～400, BL(8):350～700

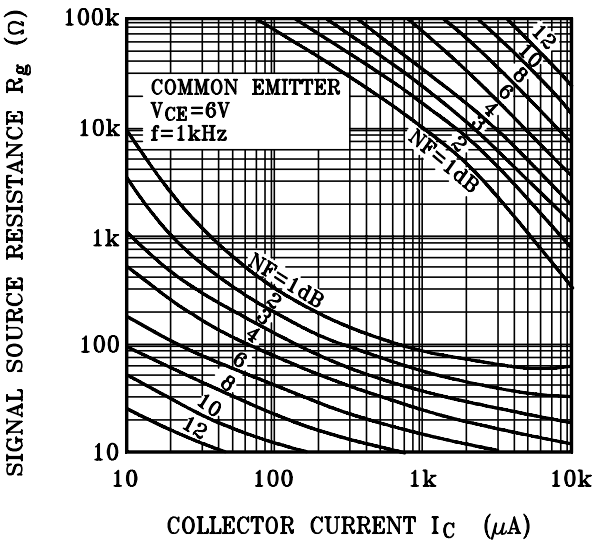
h_{FE} – I_C



h PARAMETER – V_{CE}



NF – R_g, I_C



C_{ob} – V_{CB}