

GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

### FEATURES

- Excellent  $h_{FE}$  Linearity  
:  $h_{FE}(I_C=0.1mA)/h_{FE}(I_C=2mA)=0.95(Typ.)$ .
- Low Noise :NF=1dB(Typ.) at  $f=1kHz$ .
- Complementary to KTC9015.

### MAXIMUM RATING (Ta=25°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	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C



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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=50V, I_E=0$	-	-	50	nA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	100	nA
DC Current Gain	$h_{FE}$ (Note)	$V_{CE}=5V, I_C=1mA$	60	-	1000	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$	-	0.1	0.25	V
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=1mA, f=100MHz$	60	-	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	2.0	3.5	pF
Noise Figure	NF	$V_{CE}=6V, I_C=0.1mA, R_g=10k\Omega, f=1kHz$	-	1.0	10	dB

Note :  $h_{FE}$  Classification A:60 ~ 150, B:100 ~ 300, C:200 ~ 600, C1:200 ~ 320, C2:280 ~ 420, C3:380 ~ 600, D:400 ~ 1000