



**FUKUCOM COMPANY LTD.**

**福 靈 有 限 公 司**

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

**KEC**

**SEMICONDUCTOR  
TECHNICAL DATA**

**KTC9013**

**EPITAXIAL PLANAR NPN TRANSISTOR**

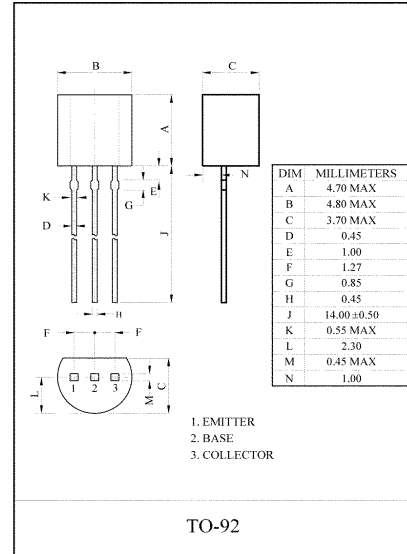
GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

**FEATURES**

- Excellent  $h_{FE}$  Linearity.
- Complementary to KTC9012.

**MAXIMUM RATING (Ta=25°C)**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	40	V
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	500	mA
Emitter Current	$I_E$	-500	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	$I_{CBO}$	$V_{CB}=35V, I_E=0$	-	-	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	0.1	$\mu A$
DC Current Gain	$h_{FE}$ (Note)	$V_{CE}=1V, I_C=50mA$	64	-	246	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=100mA, I_B=10mA$	-	0.1	0.25	V
Base-Emitter Voltage	$V_{BE}$	$I_C=100mA, V_{CE}=1V$	-	0.8	1.0	V
Transition Frequency	$f_T$	$V_{CB}=6V, I_C=20mA, f=100MHz$	140	-	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=6V, I_E=0, f=1MHz$	-	7.0	-	pF

Note :  $h_{FE}$  Classification D:64 ~ 91, E:78 ~ 112, F:96 ~ 135, G:118 ~ 166, H:144 ~ 202, I:176 ~ 246