

SEMICONDUCTOR TECHNICAL DATA

KTC9014 EPITAXIAL PLANAR NPN TRANSISTOR

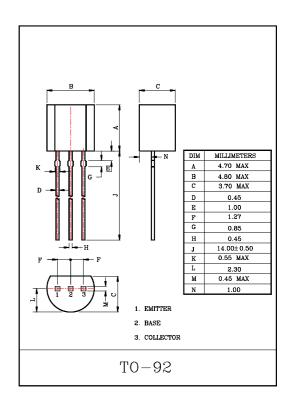
GENERAL PURPOSE APPLICATION. SWITCHING APPLICATION.

FEATURES

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

MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Collector-Base Voltage	V_{CBO}	60	V	
Collector-Emitter Voltage	V_{CEO}	50	V	
Emitter-Base Voltage	$V_{\rm EBO}$	V _{EBO} 5		
Collector Current	I_{C}	150	mA	
Emitter Current	I_{E}	-150	mA	
Collector Power Dissipation	Pc	625	mW	
Junction Temperature	$T_{\rm j}$	150	$^{\mathbb{C}}$	
Storage Temperature Range	T_{stg}	-55~150	${\mathbb C}$	



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	$\mathbf{I}_{\mathrm{EBO}}$	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	$\mathrm{f_{T}}$	V_{CE} =10V, I_{E} =-1mA, f=100MHz	60	_	_	MHz
Collector Output Capacitance	Cob	V_{CB} =10V, I_{E} =0, f =1MHz	-	2.0	3.5	рF
Noise Figure	NF	V_{CE} =6 V , I_{C} =0.1 m A, Rg =10 k Ω , f =1 k H z	-	1.0	10	dB

Note: h_{FE} Classification A:60~150, B:100~300, C:200~600, D:400~1000