

# SEMICONDUCTOR TECHNICAL DATA

# KTC9012 EPITAXIAL PLANAR PNP TRANSISTOR

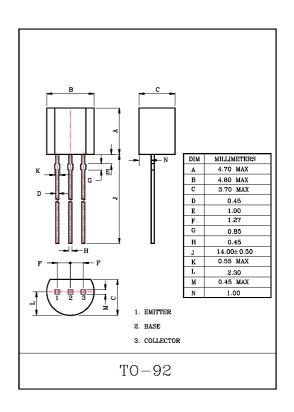
GENERAL PURPOSE APPLICATION. SWITCHING APPLICATION.

#### **FEATURES**

- Excellent h<sub>FE</sub> Linearity.
- · Complementary to KTC9013.

### MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Collector-Base Voltage	$V_{CBO}$	-40	V	
Collector-Emitter Voltage	$V_{CEO}$	-30	V	
Emitter-Base Voltage	$ m V_{EBO}$	-5	V	
Collector Current	$I_{\rm C}$	-500	mA	
Emitter Current	$I_{\mathrm{E}}$	500	mA	
Collector Power Dissipation	Pc	625	mW	
Junction Temperature	$T_{\rm j}$	150	${\mathbb C}$	
Storage Temperature Range	$T_{\mathrm{stg}}$	-55~150	$^{\circ}$	



## ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{\mathrm{CBO}}$	$V_{CB}$ =-35V, $I_{E}$ =0	_	-	-0.1	μΑ
Emitter Cut-off Current	$I_{\mathrm{EBO}}$	$V_{EB}$ =-5V, $I_{C}$ =0	_	-	-0.1	μΑ
DC Current Gain	h <sub>FE</sub> (Note)	$V_{CE}$ =-1V, $I_{C}$ =-50mA	64	-	246	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	$I_{C}$ =-100mA, $I_{B}$ =-10mA	_	-0.1	-0.25	V
Base-Emitter Voltage	$V_{ m BE}$	$I_{C}$ =-100mA, $V_{CE}$ =-1 $V$	-	-0.8	-1.0	V
Transition Frequency	$ m f_{T}$	$V_{CB}$ =-6V, $I_{C}$ =-20mA, f=100MHz	150	-	-	MHz
Collector Output Capacitance	Cob	$V_{CB}$ =-6 $V$ , $I_{E}$ =0, f=1 $MHz$	-	7.0	-	рF

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