

# SEMICONDUCTOR TECHNICAL DATA

# KTC8050 EPITAXIAL PLANAR NPN TRANSISTOR

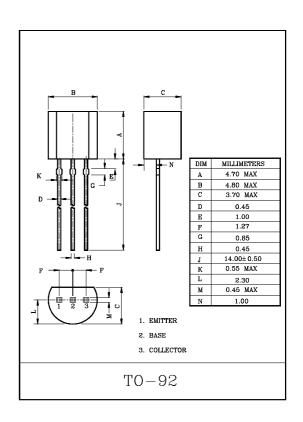
# HIGH CURRENT APPLICATION.

#### **FEATURE**

· Complementary to KTC8550.

### MAXIMUM RATINGS (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Collector-Base Voltage	$V_{CBO}$	35	V	
Collector-Emitter Voltage	$V_{\text{CEO}}$	30	V	
Emitter-Base Voltage	$V_{EBO}$	5	V	
Collector Current	$I_{\mathbb{C}}$	800	mA	
Emitter Current	$I_{\mathrm{E}}$	-800	mA	
Collector Power Dissipation	Pc	625	mW	
Junction Temperature	$T_{\rm j}$	150	${\mathbb C}$	
Storage Temperature Range	$T_{\mathrm{stg}}$	-55~150	${\mathbb C}$	



# ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{\mathrm{CBO}}$	$V_{CB}$ =15 $V$ , $I_{E}$ =0	-	-	50	nA
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	$I_{C}$ =0.5mA, $I_{E}$ =0	35	-	-	V
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	$I_C=1$ mA, $I_B=0$	30	-	-	V
DC Current Gain	h <sub>FE</sub> (1) (Note)	$V_{CE}$ =1 $V$ , $I_{C}$ =50 $mA$	100	_	300	
	h <sub>FE</sub> (2)	$V_{CE}$ =1V, $I_{C}$ =350mA	60	-	-	
Collector-Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =20mA	-	-	0.5	V
Base-Emitter Voltage	$ m V_{BE}$	$V_{CE}$ =1 $V$ , $I_{C}$ =500 $m$ A	-	-	1.2	V
Transition Frequency	$\mathrm{f_{T}}$	$V_{CE}$ =5 $V$ , $I_{C}$ =10 $m$ A	-	120	-	MHz
Collector Output Capacitance	Cob	$V_{CB}$ =10V, f=1MHz, $I_{E}$ =0	-	13	-	pF

Note :  $h_{FE}(1)$  Classification  $C: 100\sim200$ ,  $D: 150\sim300$ 

