

# SEMICONDUCTOR TECHNICAL DATA

## **KTC3203**

#### EPITAXIAL PLANAR NPN TRANSISTOR

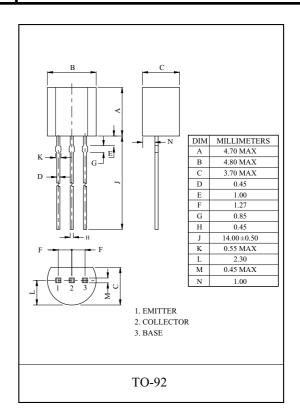
#### HIGH CURRENT APPLICATION.

#### **FEATURES**

· Complementary to KTA1271.

### MAXIMUM RATING (Ta=25 )

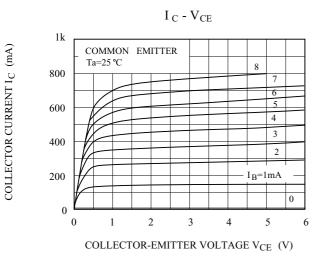
CHARACTERISTIC	SYMBOL	RATING	UNIT	
Collector-Base Voltage	$V_{CBO}$	35	V	
Collector-Emitter Voltage	V <sub>CEO</sub>	30	V	
Emitter-Base Voltage	$V_{EBO}$	5	V	
Collector Current	$I_{C}$	800	mA	
Emitter Current	$I_{\rm E}$	-800	mA	
Collector Power Dissipation	$P_{\rm C}$	625	mW	
Junction Temperature	T <sub>j</sub>	150		
Operating Temperature	T <sub>opr</sub>	-40 85		
Storage Temperature Range	$T_{stg}$	-55 150		

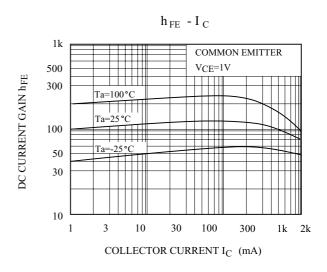


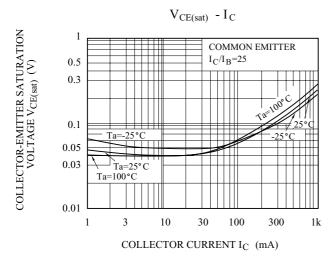
#### ELECTRICAL CHARACTERISTICS (Ta=25)

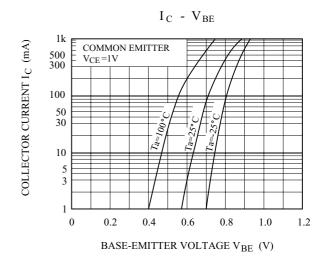
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=35V, I_{E}=0$	-	-	100	nA	
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_{C}=0$	-	-	100	nA	
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	$I_{C}=10\text{mA}, I_{B}=0$	30	-	-	V	
DC Current Gain	h <sub>FE</sub> (1) (Note)	V <sub>CE</sub> =1V, I <sub>C</sub> =100mA	100	-	320		
	h <sub>FE</sub> (2)	V <sub>CE</sub> =1V, I <sub>C</sub> =700mA	35	-	-		
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	$V_{BE}$	V <sub>CE</sub> =1V, I <sub>C</sub> =10mA	0.5	-	0.8	V	
Transition Frequency	$f_T$	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA	-	120	-	MHz	
Collector Output Capacitance	C <sub>ob</sub>	$V_{CB}=10V, I_{E}=0, f=1MHz$	-	19	-	pF	

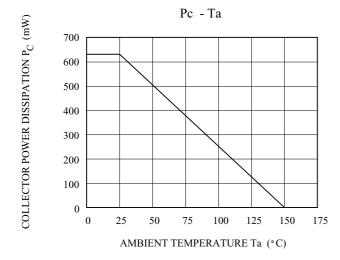
 $Note: h_{FE}(1) \ Classification \qquad 0:100 \quad 200, \quad Y:160 \quad 320$ 











KEC