



# TIGER ELECTRONIC CO.,LTD

## TO-92 Plastic-Encapsulate Transistors

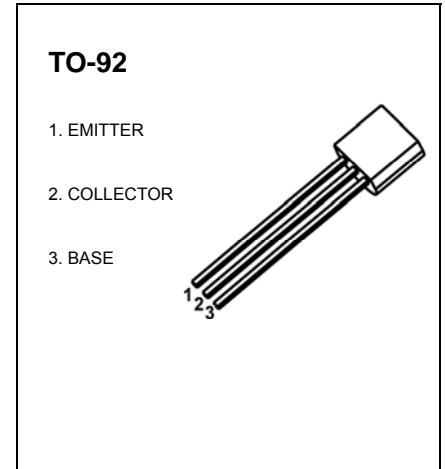
**KTC3203** TRANSISTOR (NPN)

**FEATURES**

- Complementary to KTA1271

**MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	35	V
V <sub>CEO</sub>	Collector-Emitter Voltage	30	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current -Continuous	800	mA
P <sub>C</sub>	Collector Power Dissipation	625	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-55-150	°C



**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = 0.1mA, I <sub>B</sub> =0	35			V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 10mA, I <sub>B</sub> =0	30			V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 0.1mA, I <sub>C</sub> =0	5			V
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = 35V, I <sub>E</sub> =0			0.1	μA
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = 25V, I <sub>B</sub> =0			0.2	μA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = 5V, I <sub>C</sub> =0			0.1	μA
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> = 100mA	100		320	
	h <sub>FE(2)</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> = 700mA	35			
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 500 mA, I <sub>B</sub> = 20mA			0.5	V
Base-emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 1V, I <sub>C</sub> = 10mA			0.8	V
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = 5 V, I <sub>C</sub> = 10mA		120		MHz
Collector Output Capacitance	C <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> = 0, f=1MHz		13		pF

**CLASSIFICATION OF h<sub>FE(1)</sub>**

Rank	O	Y
Range	100-200	160-320