



TO-92 Plastic-Encapsulate Transistors

KTC3203 TRANSISTOR (NPN)

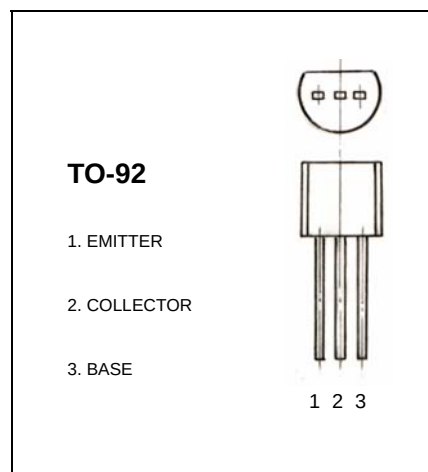
FEATURES

General purpose application switching application

MAXIMUM RATINGS* $T_A=25^{\circ}\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	35	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	5	V
I_{C}	Collector Current -Continuous	800	mA
P_{D}	Total Device Dissipation	625	mW
$T_{\text{J}}, T_{\text{stg}}$	Junction and Storage Temperature	-55-150	$^{\circ}\text{C}$

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.



ELECTRICAL CHARACTERISTICS ($T_{\text{amb}}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{\text{(BR)CBO}}$	$I_{\text{C}} = 0.1\text{mA}, I_{\text{B}}=0$	35			V
Collector-emitter breakdown voltage	$V_{\text{(BR)CEO}}$	$I_{\text{C}} = 10\text{ mA}, I_{\text{B}}=0$	30			V
Emitter-base breakdown voltage	$V_{\text{(BR)EBO}}$	$I_{\text{E}}= 0.1\text{ mA}, I_{\text{C}}=0$	5			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}= 35\text{V}, I_{\text{E}}=0$			0.1	μA
Collector cut-off current	I_{CEO}	$V_{\text{CE}}= 25\text{V}, I_{\text{B}}=0$			0.2	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}}= 5\text{V}, I_{\text{C}}=0$			0.1	μA
DC current gain	$h_{\text{FE}(1)}$	$V_{\text{CE}}=1\text{V}, I_{\text{C}}= 100\text{mA}$	100		320	
	$h_{\text{FE}(2)}$	$V_{\text{CE}}=1\text{V}, I_{\text{C}}= 700\text{mA}$	35			
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}= 500\text{ mA}, I_{\text{B}}= 20\text{mA}$			0.7	V
Base-emitter voltage	V_{BE}	$V_{\text{CE}}= 1\text{V}, I_{\text{C}}= 10\text{mA}$	0.5		0.8	V
Transition frequency	f_{T}	$V_{\text{CE}}= 5\text{ V}, I_{\text{C}}= 10\text{mA}$		120		MHz
Collector Output Capacitance	C_{ob}	$V_{\text{CB}}=10\text{V}, I_{\text{E}}= 0, f=1\text{MHz}$		13		pF

CLASSIFICATION OF $h_{\text{FE}(1)}$

Rank	O	Y
Range	100-200	160-320

Typical Characteristics

KTC3203

