



TC200

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

EPITAXIAL PLANAR NPN TRANSISTOR

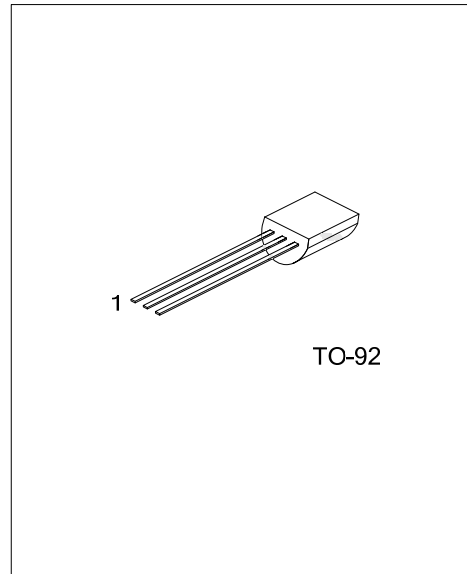
DESCRIPTION

The UTC **TC200** is an epitaxial planar NPN transistor; it uses UTC's advanced technology to provide the customers with high DC current gain and low collector-emitter saturation voltage, etc.

The UTC **TC200** is suitable for general purpose and switching application, etc.

FEATURES

- * High DC current gain
- * Low Collector-Emitter Saturation Voltage



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
TC200L-x-T92-B	TC200G-x-T92-B	TO-92	E	C	B	Tape Box
TC200L-x-T92-K	TC200G-x-T92-K	TO-92	E	C	B	Bulk

Note: Pin Assignment: C: Collector B: Base E: Emitter

<p>TC200L-x-T92-B</p> <p>(1)Packing Type (2)Package Type (3)Rank (4)Halogen Free</p>	<p>(1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) refer to CLASSIFICATION OF h_{FE1} (4) L: Lead Free, G: Halogen Free</p>
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■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V _{CBO}	60	V
Collector-Emitter Voltage	V _{CEO}	45	V
Emitter-Base Voltage	V _{EBO}	5	V
Collector Current	I _C	500	mA
Emitter Current	I _E	-500	mA
Collector Power Dissipation	P _C	625	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~ 150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Cut-Off Current	I _{CBO}	V _{CB} =50V, I _E =0			0.1	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =5V, I _C =0			0.1	μA
DC Current Gain	h _{FE1}	V _{CE} =2V, I _C =50mA	70		240	
	h _{FE2}	V _{CE} =2V, I _C =200mA	25			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =100mA, I _B =10mA			0.25	V
Base-Emitter Voltage	V _{BE}	V _{CE} =2V, I _C =200mA			1.0	V
Current Gain Bandwidth Product	f _T	V _{CE} =6V, I _C =20mA		300		MHz
Output Capacitance	C _{ob}	V _{CB} =6V, I _E =0, f=1MHz		7.0		pF

■ CLASSIFICATION OF h_{FE1}

RANK	O	Y
h _{FE1}	70 ~ 140	120 ~ 240

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