UNISONIC TECHNOLOGIES CO., LTD

TC200

Preliminary

NPN EPITAXIAL SILICON TRANSISTOR

EPITAXIAL PLANAR NPN TRANSISTOR

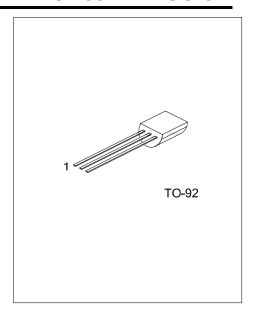
DESCRIPTION

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

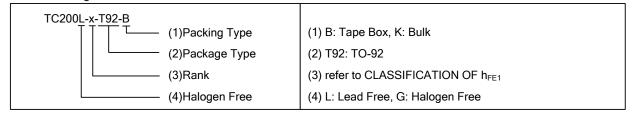
- * High DC current gain
- * Low Collector-Emitter Saturation Voltage



ORDERING INFORMATION

Ordering Number		Dookogo	Pin Assignment			Dooking	
Lead Free	Halogen Free	Package	1	2	3	Packing	
TC200L-x-T92-B	TC200G-x-T92-B	TO-92	Е	С	В	Tape Box	
TC200L-x-T92-K	TC200G-x-T92-K	TO-92	Е	С	В	Bulk	

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



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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	Ι _Ε	-500	mA
Collector Power Dissipation	Pc	625	mW
Junction Temperature	ΤJ	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	μΑ
Emitter Cut-Off Current	I _{EBO}	$V_{EB}=5V$, $I_C=0$			0.1	μΑ
DC Current Gain	h _{FE1}	V_{CE} =2V, I_{C} =50mA	70		240	
DC Current Gain	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		рF

■ CLASSIFICATION OF h_{FE1}

RANK	0	Y
h _{FF1}	70 ~ 140	120 ~ 240

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