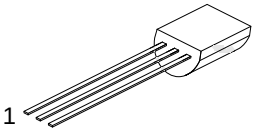
TC200

NPN EPITAXIAL SILICON TRANSISTOR

EPITAXIAL PLANAR NPN TRANSISTOR



TO-92

■ 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

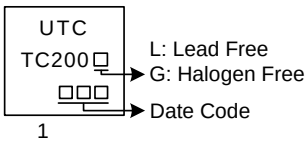
■ ORDERING INFORMATION

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

TC200G-x-T92-B (1)Packing Type (2)Package Type (3)Rank (4)Halogen Free	(1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) refer to CLASSIFICATION OF h_{FE1} (4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

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, unless otherwise specified)

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