



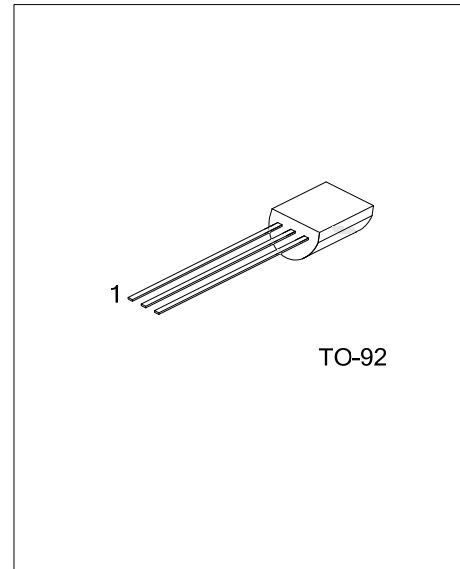
9015

PNP EPITAXIAL SILICON TRANSISTOR

PRE-AMPLIFIER, LOW LEVEL & LOW NOISE

■ **FEATURES**

- * High total power dissipation. (450mW)
- * Excellent hFE linearity.
- * Complementary to UTC 9014



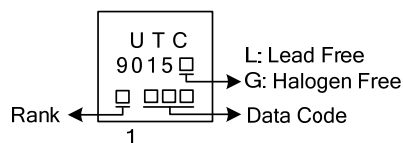
■ **ORDERING INFORMATION**

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
9015L-x-T92-B	9015G-x-T92-B	TO-92	E	B	C	Tape Box
9015L-x-T92-K	9015G-x-T92-K	TO-92	E	B	C	Bulk

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

<p>9015L-x-T92-B</p>	<p>(1) B: Tape Box, K: Bulk (2) T92: TO-92 (3) x: refer to Classification of h_{FE} (4) L: Lead Free, G: Halogen Free</p>
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■ **MARKING**



■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CB0}	-50	V
Collector-Emitter Voltage	V_{CEO}	-45	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA
Collector Dissipation	P_C	450	mW
Junction Temperature	T_J	+150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^\circ\text{C}$

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.

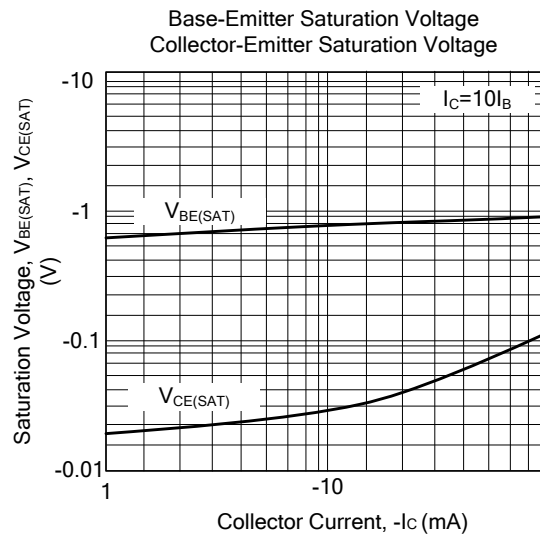
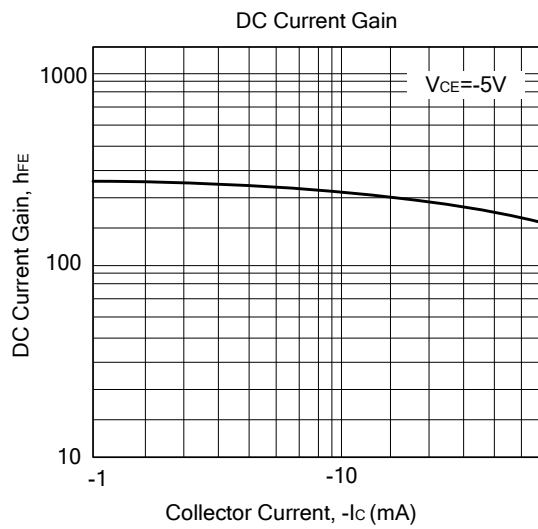
■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CB0}	$I_C = -100\mu\text{A}$, $I_E = 0$	-50			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1\text{mA}$, $I_B = 0$	-45			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -100\mu\text{A}$, $I_C = 0$	-5			V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -100\text{mA}$, $I_B = -5\text{mA}$		-0.2	-0.7	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -100\text{mA}$, $I_B = -5\text{mA}$		-0.82	-1.0	V
Base-Emitter On Voltage	$V_{BE(on)}$	$V_{CE} = -5\text{V}$, $I_C = -2\text{mA}$	-0.6	-0.65	-0.75	V
Collector Cutoff Current	I_{CBO}	$V_{CB} = -50\text{V}$, $I_E = 0$			-50	nA
Emitter Cutoff Current	I_{EBO}	$V_{EB} = -5\text{V}$, $I_C = 0$			-100	nA
DC Current Gain	h_{FE}	$V_{CE} = -5\text{V}$, $I_C = -1\text{mA}$	60	200	600	
Output Capacitance	C_{ob}	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$		4.5	7.0	pF
Current Gain-Bandwidth Product	f_T	$V_{CE} = -5\text{V}$, $I_C = -10\text{mA}$	100	190		MHz
Noise Figure	NF	$V_{CE} = -5\text{V}$, $I_C = -0.2\text{mA}$ $f = 1\text{KHz}$, $R_s = 1\text{K}\Omega$		0.7	10	dB

■ CLASSIFICATION OF h_{FE}

RANK	A	B	C
RANGE	60-150	100-300	200-600

■ TYPICAL CHARACTERISTICS



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