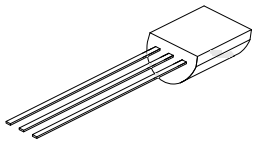
9015

Preliminary **PNP EPITAXIAL SILICON TRANSISTOR**

PRE-AMPLIFIER, LOW LEVEL & LOW NOISE



TO-92

■ FEATURES

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

■ ORDERING INFORMATION

Ordering Number		Package	Packing
Lead Free	Halogen Free		
9015L-x-T92-B	9015G-x-T92-B	TO-92	Tape Box
9015L-x-T92-K	9015G-x-T92-K	TO-92	Bulk
9015L-x-T92-T	9015G-x-T92-T	TO-92	Tape Reel

9015L-x-T92-B
(1)Packing Type
(2)Package Type
(3)Rank
(4)Halogen Free

(1) B: Tape Box, T: Tape Reel
(2) T92: TO-92
(3) x: refer to Classification of h_{FE}
(4) G:Halogen Free, L: Lead Free

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

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-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	°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 (Ta=25°C, unless otherwise specified)

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

■ CLASSIFICATION OF h_{FE}

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