UTC UNISONIC TECHNOLOGIES CO., LTD

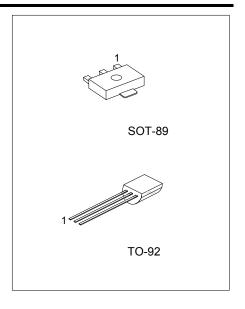
2N5401

PNP SILICON TRANSISTOR

HIGH VOLTAGE SWITCHING TRANSISTOR

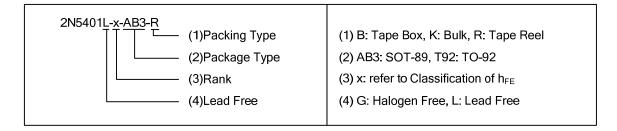
FEATURES

- * Collector-emitter voltage: V_{CEO} = -150V
- * High current gain



ORDERING INFORMATION

Ordering Number		Pin Assignment			Dooking		
Lead Free	Halogen Free	Package	1	2	3	Packing	
2N5401L-x-AB3-R	2N5401G-x-AB3-R	SOT-89	В	С	Е	Tape Reel	
2N5401L-x-T92-B	2N5401G-x-T92-B	TO-92	E	В	С	Tape Box	
2N5401L-x-T92-K	2N5401G-x-T92-K	TO-92	Е	В	С	Bulk	
2N5401L-x-T92-R	2N5401G-x-T92-R	TO-92	Е	В	С	Tape Reel	



www.unisonic.com.tw 1 of 4 QW-R201-001,E

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

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	-160	V
Collector-Emitter Voltage		V_{CEO}	-150	V
Emitter-Base Voltage		V _{EBO} -5		V
Collector Current		Ic	-600	mA
Callacter Dissipation	TO-92		625	mW
Collector Dissipation	SOT-89	P _C	500	mW
Junction Temperature		T_J	+150	$^{\circ}\!\mathbb{C}$
Storage Temperature	<u>'</u>	T _{STG}	-55 ~ + 150	$^{\circ}\!\mathbb{C}$

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)

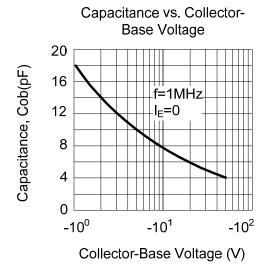
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CBO}	$I_C = -100 \mu A, I_E = 0$	-160			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	$I_{C} = -1 \text{mA}, I_{B} = 0$	-150			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -10\mu A, I_C = 0$	-5			V
Collector Cut-off Current	I _{CBO}	$V_{CB} = -120V, I_{E} = 0$			-50	nA
Emitter Cut-off Current	I _{EBO}	$V_{EB} = -3V, I_{C} = 0$			-50	nA
	h _{FE1}	$V_{CE} = -5V$, $I_C = -1mA$	80			
DC Current Gain (Note)	h _{FE2}	$V_{CE} = -5V, I_{C} = -10mA$	80		400	
	h _{FE3}	$V_{CE} = -5V, I_{C} = -50mA$	80			
Collector-Emitter Saturation Voltage	V	$I_{C} = -10 \text{mA}, I_{B} = -1 \text{mA}$			-0.2	V
Collector-Efflitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -50$ mA, $I_B = -5$ mA			-0.5	_ v
Base-Emitter Saturation Voltage	VDE(CAT)	$I_C = -10mA, I_B = -1mA$			-1	V
Base-Efficier Saturation voltage		$I_C = -50 \text{mA}, I_B = -5 \text{mA}$			-1	V
Current Gain Bandwidth Product	f _⊤	$V_{CE} = -10V, I_{C} = -10mA$	100		400	MHz
Current Gain Bandwidth Product		f = 100MHz	100		400 1	IVITZ
Output Capacitance	Сов	$V_{CB} = -10V$, $I_E = 0$, $f = 1MHz$			6.0	pF
Noise Figure	NF	$I_C = -0.25$ mA, $V_{CE} = -5$ V			8	٩D
Noise Figure		$R_S = 1k\Omega$, $f = 10Hz \sim 15.7kHz$			٥	dB

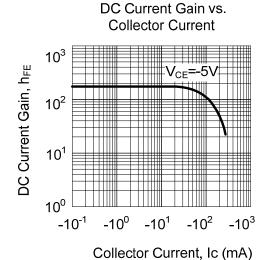
Note: Pulse test: P_W <300 μ s, Duty Cycle<2%

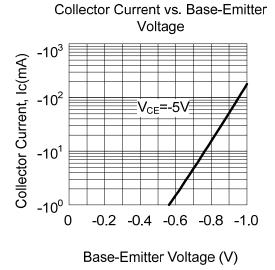
■ CLASSIFICATION OF h_{FE}

RANK	А	В	С
RANGE	80-170	150-240	200-400

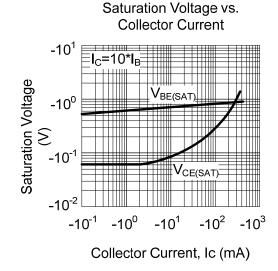
TYPICAL CHARACTERISTICS

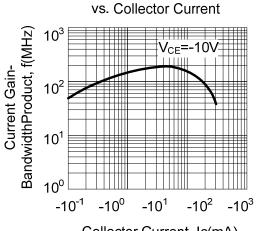






Current Gain-Bandwidth Product





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