



2N5401

PNP SILICON TRANSISTOR

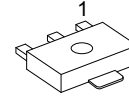
HIGH VOLTAGE SWITCHING TRANSISTOR

FEATURES

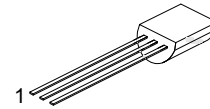
* Collector-emitter voltage:

$V_{CE0} = -150V$

* High current gain



SOT-89



TO-92

ORDERING INFORMATION

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

2N5401L-x-AB3-R

- (1)Packing Type
- (2)Package Type
- (3)Rank
- (4)Lead Free

(1) B: Tape Box, K: Bulk, R: Tape Reel

(2) AB3: SOT-89, T92: TO-92

(3) x: refer to Classification of h_{FE}

(4) G: Halogen Free, L: Lead Free

■ **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		I_C	-600	mA
Collector Dissipation	TO-92	P_C	625	mW
	SOT-89		500	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)

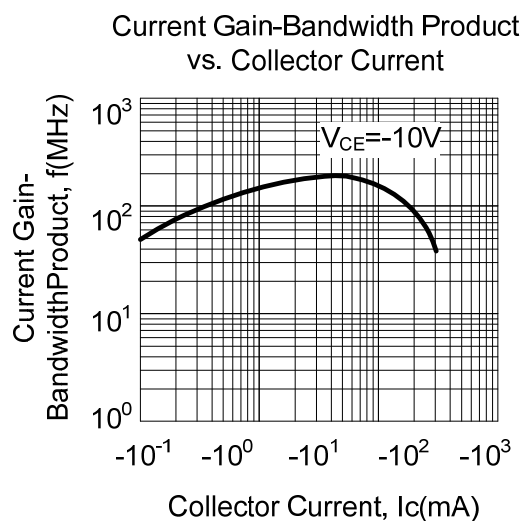
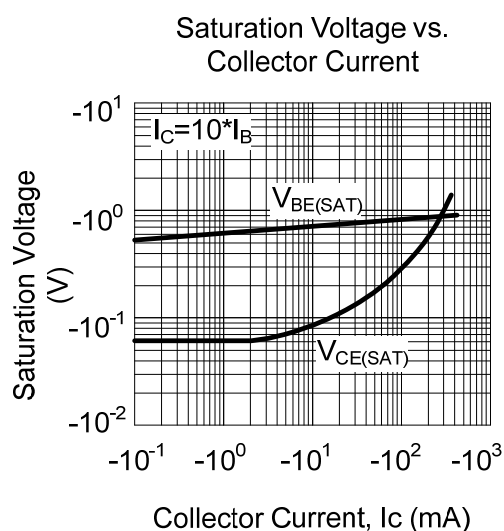
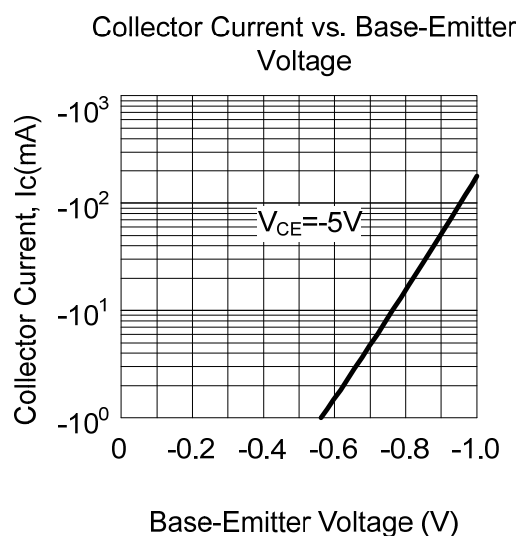
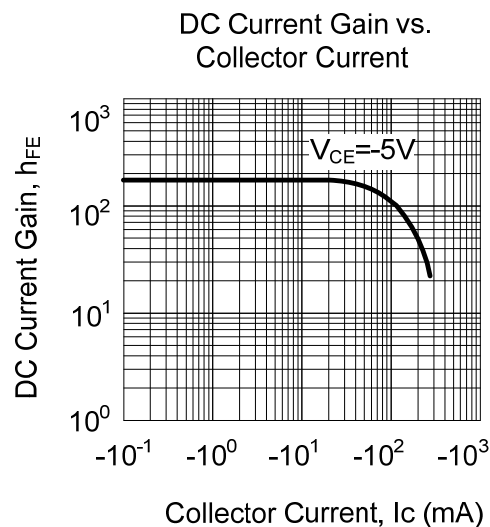
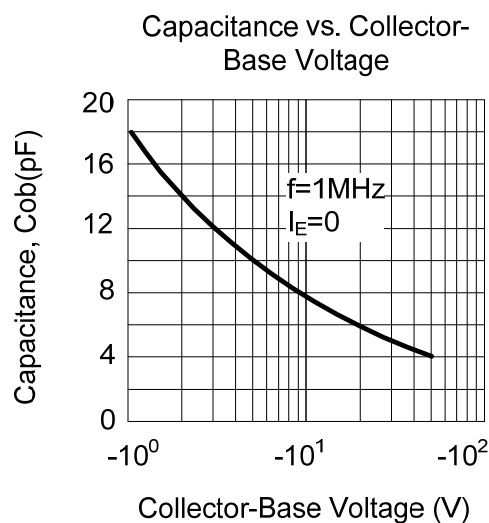
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -100\mu A, I_E = 0$	-160			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1mA, I_B = 0$	-150			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -10\mu A, I_C = 0$	-5			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = -120V, I_E = 0$			-50	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -3V, I_C = 0$			-50	nA
DC Current Gain (Note)	h_{FE1}	$V_{CE} = -5V, I_C = -1mA$	80			
	h_{FE2}	$V_{CE} = -5V, I_C = -10mA$	80		400	
	h_{FE3}	$V_{CE} = -5V, I_C = -50mA$	80			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C = -10mA, I_B = -1mA$ $I_C = -50mA, I_B = -5mA$			-0.2 -0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	$I_C = -10mA, I_B = -1mA$ $I_C = -50mA, I_B = -5mA$			-1 -1	V
Current Gain Bandwidth Product	f_T	$V_{CE} = -10V, I_C = -10mA$ $f = 100MHz$	100		400	MHz
Output Capacitance	C_{OB}	$V_{CB} = -10V, I_E = 0, f = 1MHz$			6.0	pF
Noise Figure	NF	$I_C = -0.25mA, V_{CE} = -5V$ $R_S = 1k\Omega, f = 10Hz \sim 15.7kHz$			8	dB

Note: Pulse test: $P_W < 300\mu s$, Duty Cycle < 2%

■ **CLASSIFICATION OF h_{FE}**

RANK	A	B	C
RANGE	80-170	150-240	200-400

■ TYPICAL CHARACTERISTICS



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