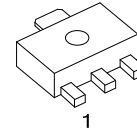


**2N5401****PNP SILICON TRANSISTOR****HIGH VOLTAGE SWITCHING TRANSISTOR****■ FEATURES**

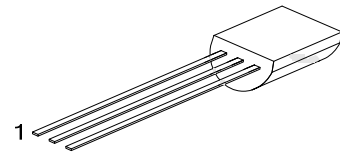
* Collector-emitter voltage:

$$V_{CE0} = -150V$$

* High current gain,



SOT-89



TO-92

■ ORDERING INFORMATION

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

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

 2N5401L-x-T92-A-B	(1)Packing Type (2)Pin Assignment (3)Package Type (4)Rank (5)Green Package	(1) B: Tape Box, K: Bulk, R: Tape Reel (2) refer to Pin Assignment (3) AB3: SOT-89, T92: TO-92 (4) x: refer to Classification of h_{FE2} (5) L: Lead Free, G: Halogen Free and Lead Free
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■ MARKING

SOT-89	TO-92
 2N5401G → Data Code	 UTC 2N5401 Rank ← → Data Code L: Lead Free G: Halogen Free

■ **ABSOLUTE MAXIMUM RATING** ($T_A=25^{\circ}\text{C}$, 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	SOT-89	P_C	500	mW
	TO-92		625	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)

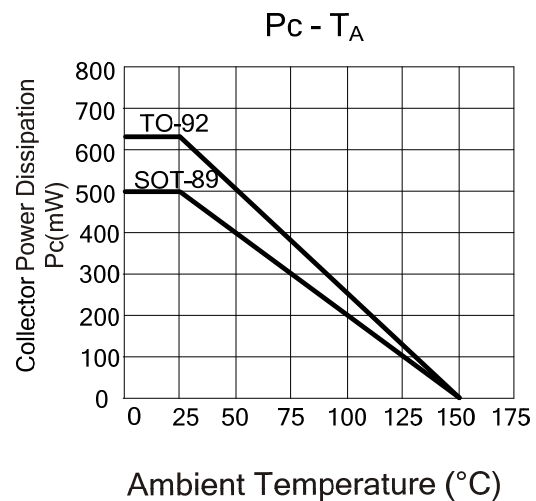
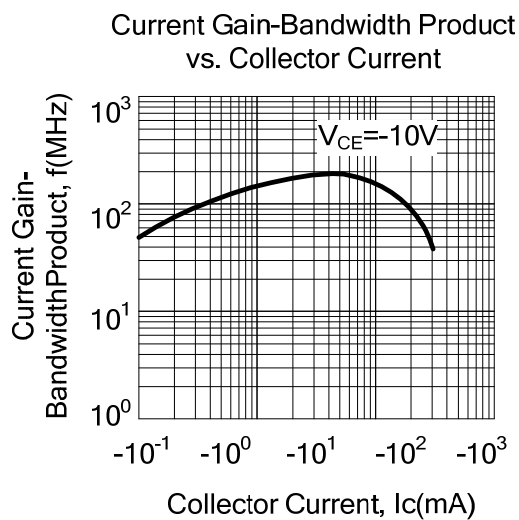
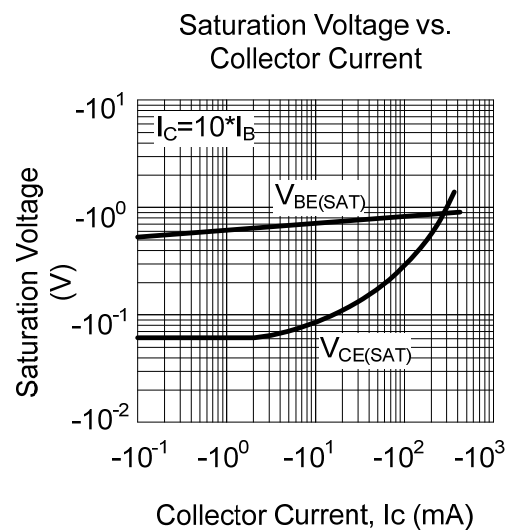
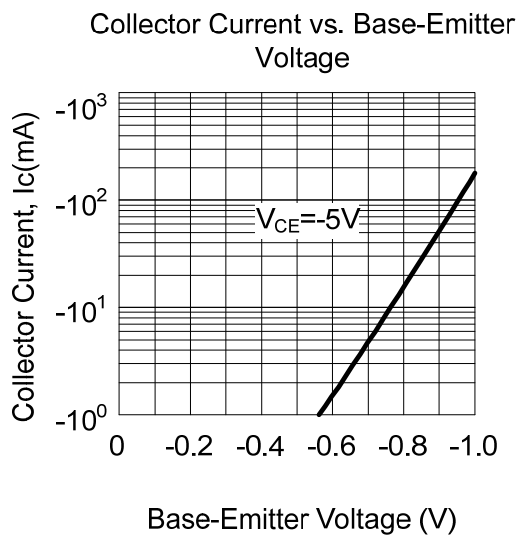
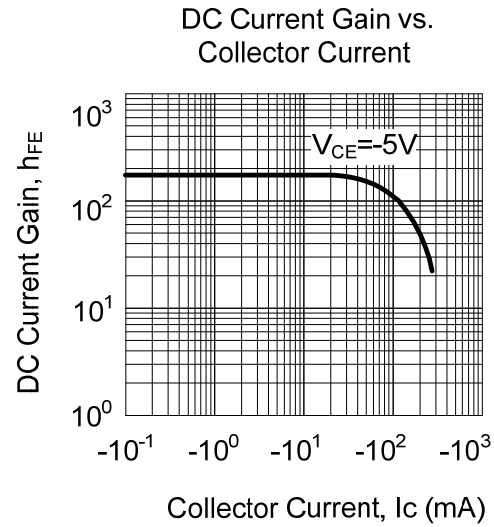
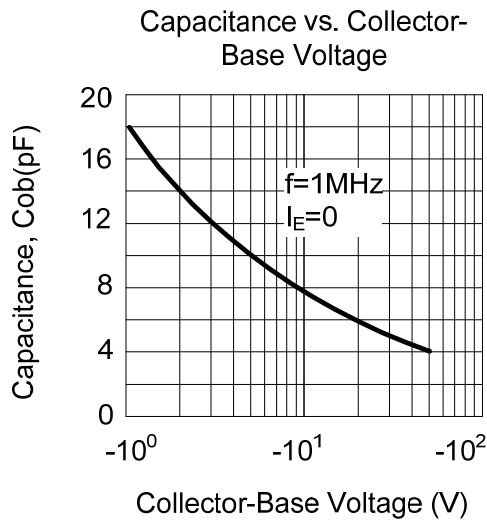
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C = -100\mu\text{A}$, $I_E = 0$	-160			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C = -1\text{mA}$, $I_B = 0$	-150			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E = -10\mu\text{A}$, $I_C = 0$	-5			V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

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

■ **CLASSIFICATION OF h_{FE2}**

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

■ TYPICAL CHARACTERISTICS



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