

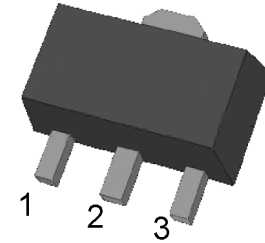
## High Voltage Transistors

### DESCRIPTION & FEATURES

High Collector Breakdown Voltage: ( $V_{CBO}=-160V$ ,  $V_{CEO}=-150V$ )  
 Low Leakage Current: ( $I_{CBO}=-50nA(\text{Max.})$ , @ $V_{CB}=-120V$ )  
 Low Saturation Voltage:  $V_{CE(\text{sat})}=-0.5V(\text{Max.})$ , @ $I_C=-50mA$ ,  $I_B=-5mA$   
 Low Noise:  $NF=8\text{dB}(\text{Max.})$

### PIN ASSIGNMENT

PIN NAME	PIN NUMBER	FUNCTION
	SOT-89	
B	1	BASE
C	2	COLLECTOR
E	3	EMITTER



DEVICE MARKING: SXT5401=2L

### MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

CHARACTERISTIC	Symbol	Rating	Unit
Collector-Emitter Voltage	$V_{CEO}$	-150	Vdc
Collector-Base Voltage	$V_{CBO}$	-160	Vdc
Emitter-Base Voltage	$V_{EBO}$	-5.0	Vdc
Collector Current	$I_C$	-0.5	Adc

### THERMAL CHARACTERISTICS

CHARACTERISTIC	Symbol	Max	Unit
Total power dissipation ( $T_{amb} = 25^\circ\text{C}$ ; note1)	$P_D$	0.5	W
Junction and Storage Temperature	$T_j$ , $T_{stg}$	150, -55~150	$^\circ\text{C}$
Operating ambient temperature	$T_{amb}$	-55~150	$^\circ\text{C}$
Thermal resistance from junction to ambient	$R_{th\ j-a}$	250	$^\circ\text{C/W}$

### SMALL-SIGNAL CHARACTERISTICS

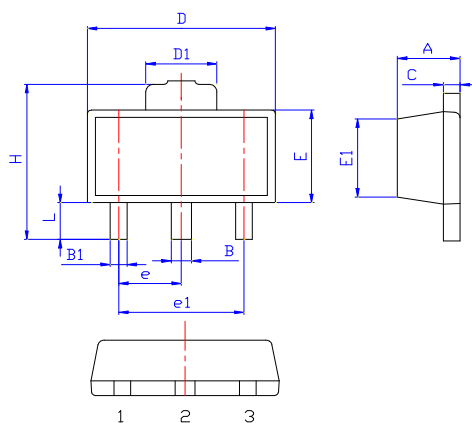
Characteristic	Symbol	Test Condition	Min	Type	Max	Unit
Transition Frequency	fT	$V_{CE}=-10V, I_E=-10mA$ , $f=100\text{MHz}$	100	—	300	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=-10V, I_E=0, f=1\text{MHz}$	—	—	6	pF
Noise Figure	NF	$R_S=10\Omega, f=10\text{Hz to } 15.7\text{KHz}$ $V_{CE}=-5.0\text{Vdc}, I_C=-200\mu\text{Adc}$	—	—	8.0	dB

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

Characteristic	Symbol	Test Condition	Min	Max	Unit
Collector cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = -120Vdc, I <sub>E</sub> = 0	—	-50	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> = -4.0Vdc, I <sub>C</sub> = 0	—	-50	nA
Collector-Emitter Breakdown Voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = -1.0 mAdc, I <sub>B</sub> = 0	-150	—	Vdc
Collector-Base Breakdown Voltage	V <sub>(BR)CBO</sub>	I <sub>C</sub> = -100 μ Adc, I <sub>E</sub> = 0	-160	—	Vdc
Emitter-Base Breakdown Voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = -10 μ Adc, I <sub>C</sub> = 0	-5.0	—	Vdc
DC current gain	h <sub>FE</sub>	I <sub>C</sub> = -1.0mAdc, V <sub>CE</sub> = -5.0Vdc	50	—	—
		I <sub>C</sub> = -10mAdc, V <sub>CE</sub> = -5.0Vdc	60	360	—
		I <sub>C</sub> = -50mAdc, V <sub>CE</sub> = -5.0Vdc	50	—	—
Collector-emitter saturation voltage	V <sub>CEsat</sub>	I <sub>C</sub> = -10mAdc, I <sub>B</sub> = -1.0mAdc	—	-0.2	Vdc
		I <sub>C</sub> = -50mAdc, I <sub>B</sub> = 5.0mAdc	—	-0.5	Vdc
Base-Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -10mAdc, I <sub>B</sub> = -1.0mAdc	—	-1.0	Vdc
		I <sub>C</sub> = -50mAdc, I <sub>B</sub> = 5.0mAdc	—	-1.0	Vdc

## SOT-89

## (SOT-89 DIMENSION)



DIM	MILLIMETERS	
	MIN.	MAX.
A	1.40	1.60
B	0.46	0.56
B1	0.36	0.48
C	0.35	0.44
D	4.40	4.60
D1	1.62	1.83
E	2.29	2.60
E1	---	---
e	1.50REF	
e1	3.00REF	
H	3.94	4.25
L	0.89	1.20

单击下面可查看定价，库存，交付和生命周期等信息

[>>SHIKUES\(时科\)](#)