

Excellent Integrated System Limited

Stocking Distributor

Click to view price, real time Inventory, Delivery & Lifecycle Information:

[Sanken](#)
[STA431A](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

STA431A

PNP + NPN
 H-bridge

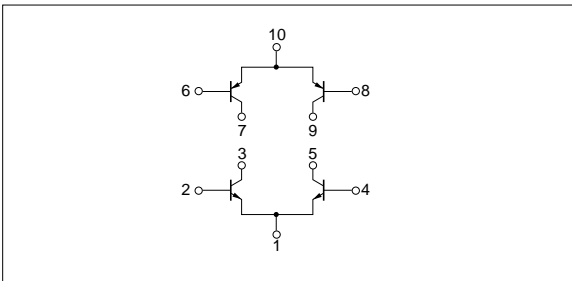
External dimensions STA (10-pin)

Absolute maximum ratings

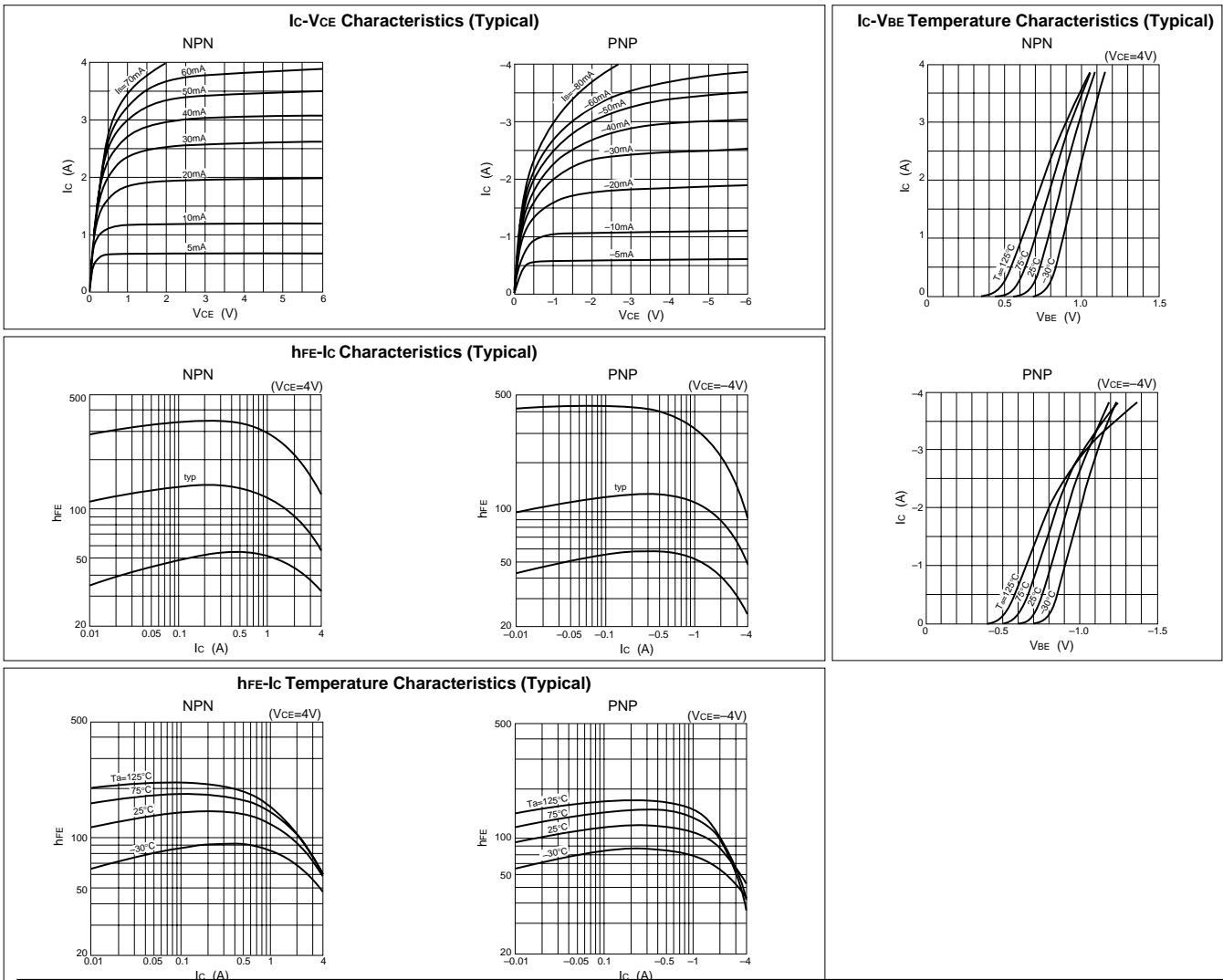
($T_a=25^\circ\text{C}$)

Symbol	Ratings		Unit
	NPN	PNP	
V_{CBO}	60	-60	V
V_{CEO}	60	-60	V
V_{EBO}	6	-6	V
I_C	3	-3	A
I_{CP}	6 ($PW \leq 10\text{ms}, D_u \leq 50\%$)	-6 ($PW \leq 10\text{ms}, D_u \leq 50\%$)	A
P_T	4 ($T_a=25^\circ\text{C}$)		W
	20 ($T_c=25^\circ\text{C}$)		
T_j	150		$^\circ\text{C}$
T_{stg}	-40 to +150		$^\circ\text{C}$

Equivalent circuit diagram



Characteristic curves



STA431A

Electrical characteristics

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

Symbol	NPN					PNP				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
I_{CBO}			100	μA	$V_{CB}=60\text{V}$			-100	μA	$V_{CB}=-60\text{V}$
I_{EBO}			100	μA	$V_{EB}=6\text{V}$			-100	μA	$V_{EB}=-6\text{V}$
V_{CEO}	60			V	$I_C=25\text{mA}$	-60			V	$I_C=-25\text{mA}$
hFE	40				$V_{CE}=4\text{V}, I_C=1\text{A}$	40				$V_{CE}=-4\text{V}, I_C=-1\text{A}$
$V_{CE(sat)}$			1.0	V	$I_C=2\text{A}, I_B=0.2\text{A}$			-1.0	V	$I_C=-2\text{A}, I_B=-0.2\text{A}$
t_{on}		0.2		μs	$V_{CC} \div -12\text{V},$ $I_C=2\text{A},$ $I_{B1}=-I_{B2}=0.2\text{A}$		0.25		μs	$V_{CC} \div -12\text{V},$ $I_C=-2\text{A},$ $I_{B1}=-I_{B2}=-0.2\text{A}$
tstg		1.0		μs			0.75		μs	
tf		0.3		μs			0.25		μs	

Characteristic curves

