

Excellent Integrated System Limited

Stocking Distributor

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

[Sanken](#)
[STA413A](#)

For any questions, you can email us directly:

sales@integrated-circuit.com

STA413A

NPN

With built-in avalanche diode

External dimensions STA (10-pin)

Absolute maximum ratings

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

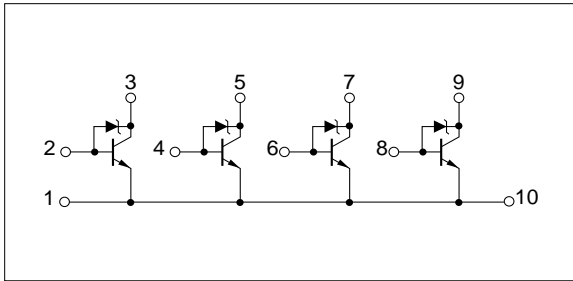
Symbol	Ratings	Unit
V_{CB0}	35±5	V
V_{CE0}	35±5	V
V_{EBO}	6	V
I_C	3	A
I_B	1	A
P_T	4 ($T_a=25^\circ\text{C}$)	W
	20 ($T_c=25^\circ\text{C}$)	
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

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

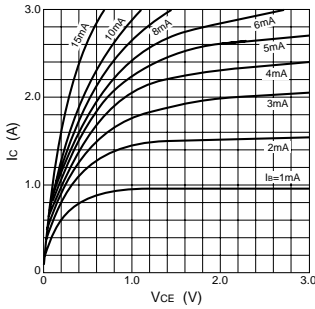
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CB0}			10	μA	$V_{CB}=30\text{V}$
I_{EBO}			10	μA	$V_{EB}=6\text{V}$
V_{CE0}	30		40	V	$I_C=25\text{mA}$
h_{FE}	500				$V_{CE}=4\text{V}, I_C=0.5\text{A}$
$V_{CE(sat)}$			0.5	V	$I_C=1\text{A}, I_B=5\text{mA}$

Equivalent circuit diagram

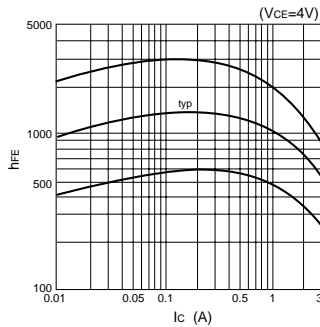


Characteristic curves

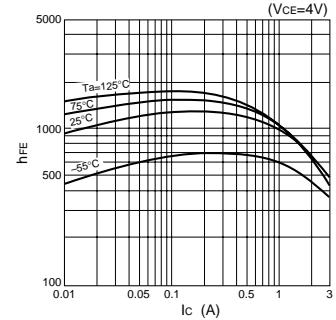
I_C - V_{CE} Characteristics (Typical)



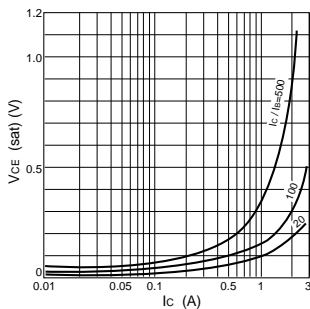
h_{FE} - I_C Characteristics (Typical)



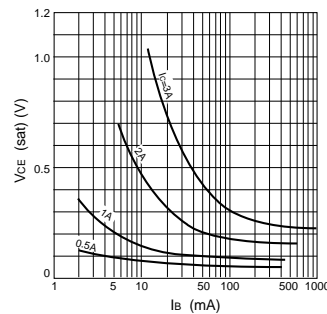
h_{FE} - I_C Temperature Characteristics (Typical)



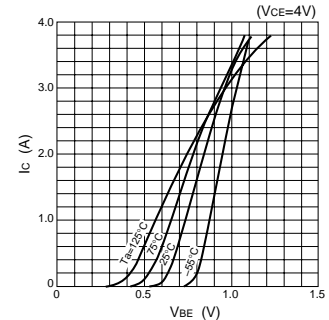
$V_{CE(sat)}$ - I_C Characteristics (Typical)



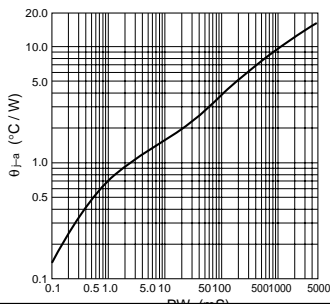
$V_{CE(sat)}$ - I_B Characteristics (Typical)



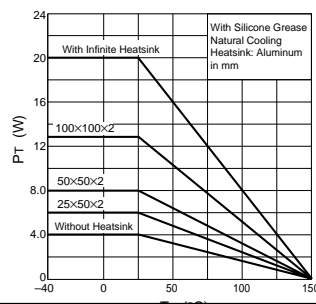
I_C - V_{BE} Temperature Characteristics (Typical)



θ_{j-a} -PW Characteristics



P_T - T_a Characteristics



Safe Operating Area (SOA)

