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STA472A

PNP Darlington
 General purpose

External dimensions STA (10-pin)

Absolute maximum ratings

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

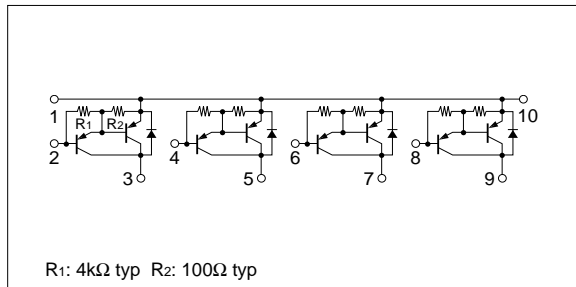
Symbol	Ratings	Unit
V_{CBO}	-60	V
V_{CEO}	-60	V
V_{EBO}	-6	V
I_C	-2	A
I_{CP}	-4 (PW \leq 1ms, $D_u\leq$ 25%)	A
I_B	-0.5	A
P_T	4 ($T_a=25^\circ\text{C}$)	W
	20 ($T_c=25^\circ\text{C}$)	
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

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

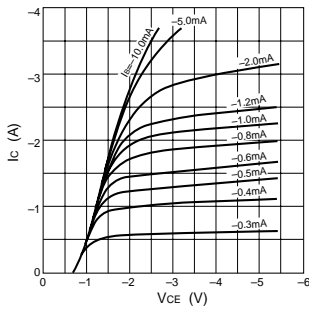
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CBO}			-10	μA	$V_{CB}=-60\text{V}$
I_{EBO}			-5	mA	$V_{EB}=-6\text{V}$
V_{CEO}	-60			V	$I_C=-10\text{mA}$
h_{FE}	2000	4000	10000		$V_{CE}=-4\text{V}$, $I_C=-1\text{A}$
$V_{CE(sat)}$		-1.2	-1.5	V	$I_C=-1\text{A}$, $I_B=-2\text{mA}$
$V_{BE(sat)}$		-1.9	-2.2	V	
V_{FEC}		-1.3	-1.8	V	$I_{FEC}=-1\text{A}$
t_{on}		0.4		μs	$V_{CC}=-30\text{V}$, $I_C=-1\text{A}$, $I_{B1}=-I_{B2}=-2\text{mA}$
t_{stg}		1.0		μs	
t_f		0.4		μs	
f_T		100		MHz	$V_{CE}=12\text{V}$, $I_E=-0.1\text{A}$
C_{ob}		30		pF	$V_{CB}=10\text{V}$, $f=1\text{MHz}$

Equivalent circuit diagram

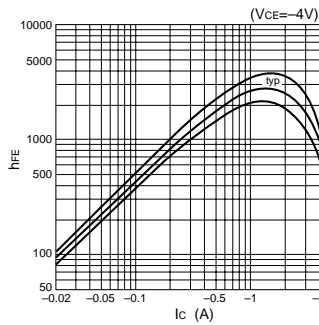


Characteristic curves

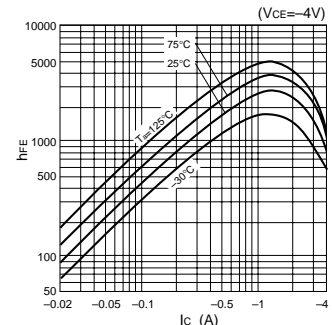
I_C - V_{CE} Characteristics (Typical)



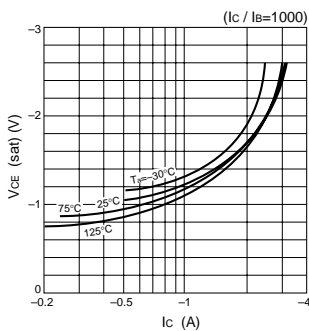
h_{FE} - I_C Characteristics (Typical)



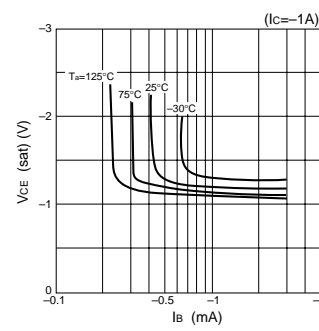
h_{FE} - I_C Temperature Characteristics (Typical)



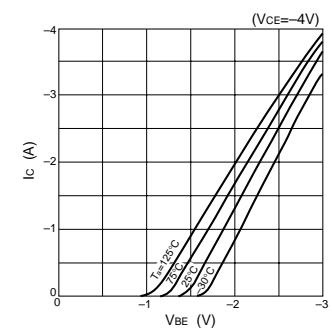
$V_{CE(sat)}$ - I_C Temperature Characteristics (Typical)



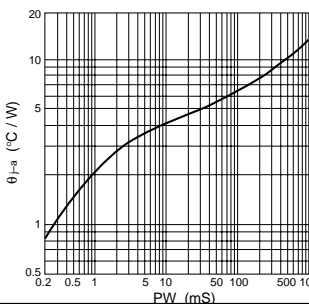
$V_{CE(sat)}$ - I_B Temperature Characteristics (Typical)



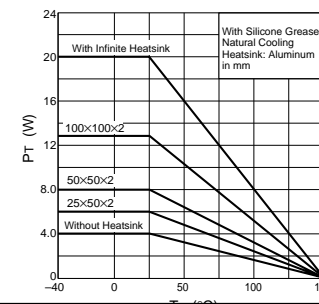
I_C - V_{BE} Temperature Characteristics (Typical)



θ_{j-a} -PW Characteristics



P_T - T_a Characteristics



Safe Operating Area (SOA)

