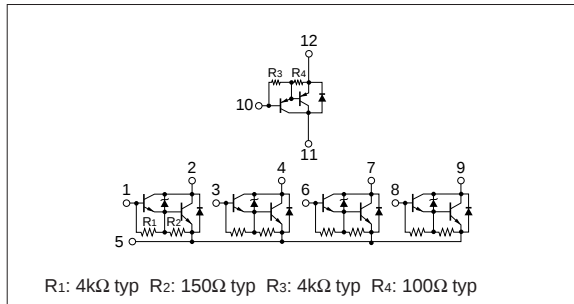


Absolute maximum ratings

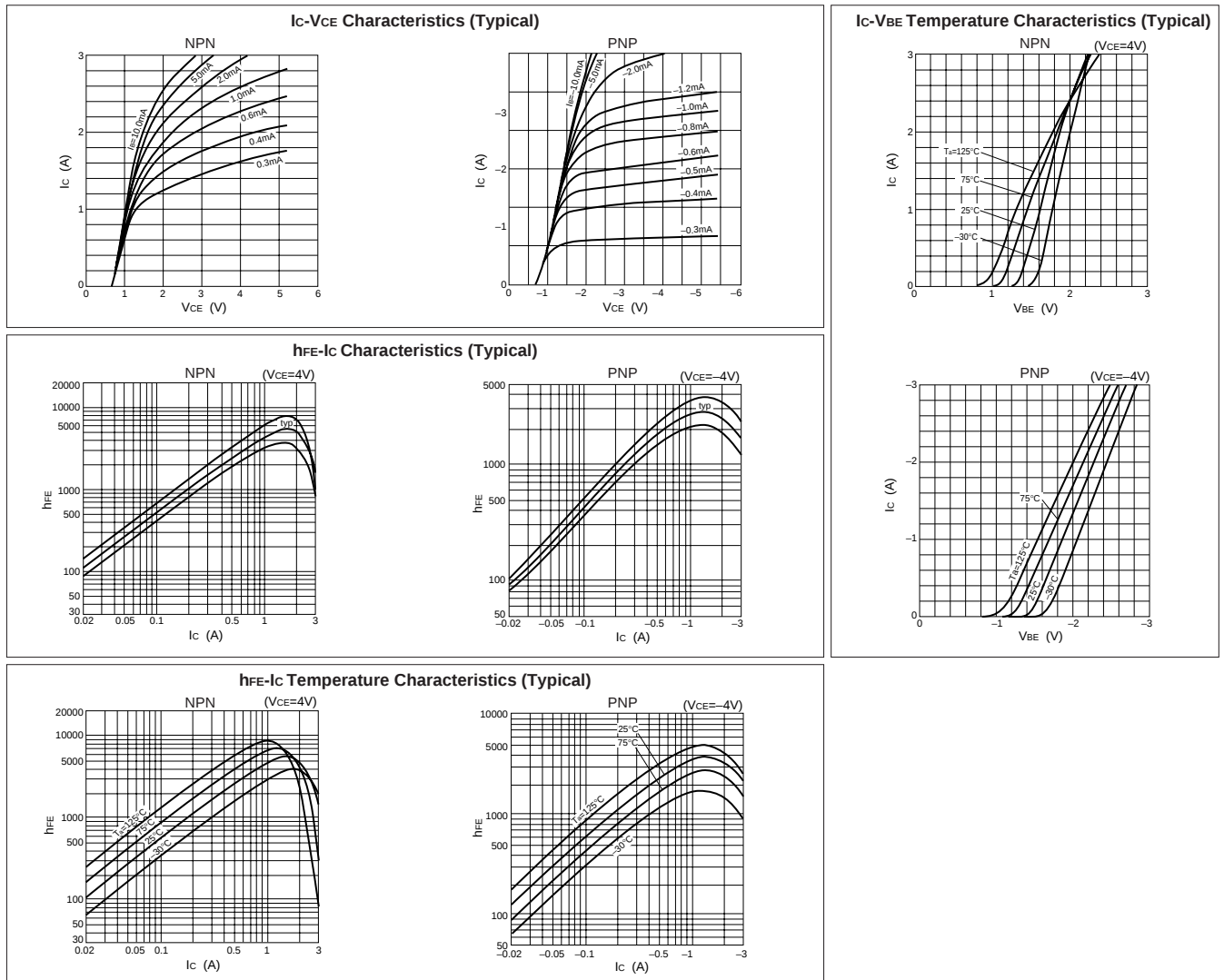
($T_a=25^\circ\text{C}$)

Symbol	Ratings		Unit
	NPN	PNP	
V _{CBO}	60±10	−60	V
V _{CEO}	60±10	−60	V
V _{EBO}	6	−6	V
I _{CP}	1.5	−3	A
I _B	0.5	−0.5	A
P _T	4 (T _a =25°C)		W
	20 (T _c =25°C)		
T _j	150		°C
T _{stg}	−40 to +150		°C

Equivalent circuit diagram



Characteristic curves



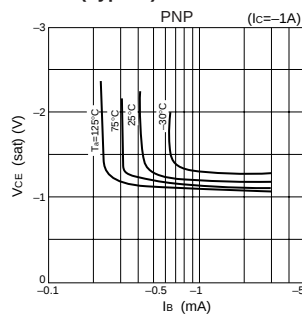
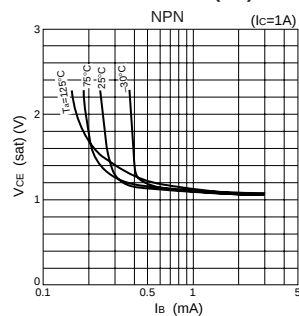
Electrical characteristics

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

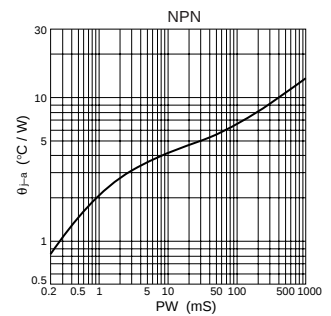
Symbol	NPN					PNP				
	Specification			Unit	Conditions	Specification			Unit	Conditions
	min	typ	max			min	typ	max		
I_{CBO}			10	μA	$V_{CB}=50\text{V}$			-10	μA	$V_{CB}=-60\text{V}$
I_{EBO}			5	mA	$V_{EB}=6\text{V}$			-5	mA	$V_{EB}=-6\text{V}$
V_{CEO}	50	60	70	V	$I_C=10\text{mA}$	-60			V	$I_C=-10\text{mA}$
h_{FE}	2000				$V_{CE}=4\text{V}$, $I_C=1\text{A}$	2000				$V_{CE}=-4\text{V}$, $I_C=-1\text{A}$
$V_{CE(sat)}$			1.5	V	$I_C=1\text{A}$, $I_B=2\text{mA}$			-1.5	V	$I_C=-1\text{A}$, $I_B=-2\text{mA}$

Characteristic curves

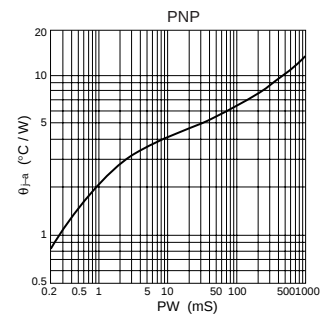
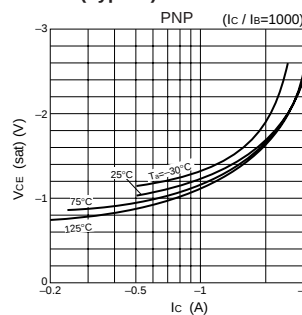
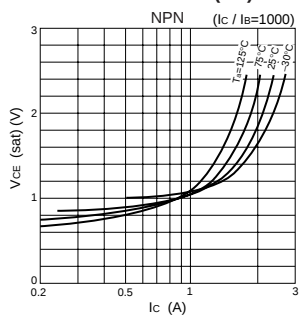
$V_{CE(sat)}$ - I_B Temperature Characteristics (Typical)



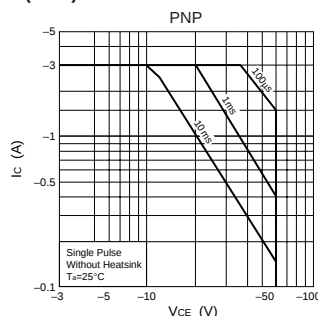
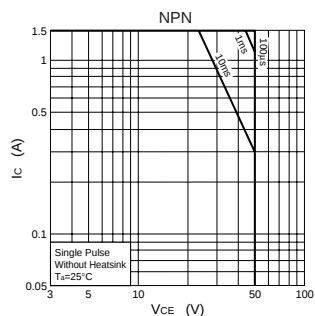
θ_{JA} -PW Characteristics



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



Safe Operating Area (SOA)



P_T - T_a Characteristics

