

Absolute maximum ratings

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

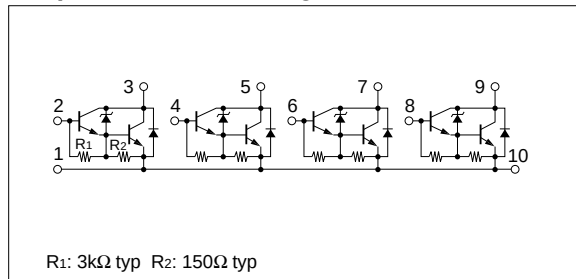
Symbol	Ratings	Unit
V_{CB0}	60 ± 10	V
V_{CEO}	60 ± 10	V
V_{EBO}	6	V
I_C	6	A
I_B	1	A
P_T	4 ($T_a=25^\circ\text{C}$)	W
	20 ($T_c=25^\circ\text{C}$)	
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

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

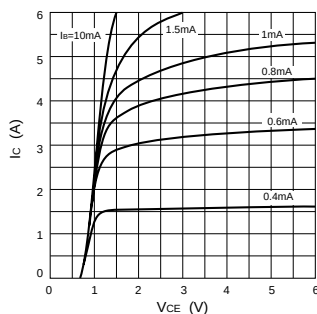
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CBO}			10	μA	$V_{CB}=50\text{V}$
I_{EBO}			10	mA	$V_{EB}=6\text{V}$
V_{CEO}	50	60	70	V	$I_C=50\text{mA}$
h_{FE}	2000		15000		$V_{CE}=2\text{V}$, $I_C=3\text{A}$
$V_{CE(sat)}$			1.5	V	$I_C=3\text{A}$, $I_B=10\text{mA}$
$V_{BE(sat)}$			2.0	V	
E_S/B	200			mJ	$V_{CC}=20\text{V}$, $L=10\text{mH}$, $I_C=6.4\text{A}$

Equivalent circuit diagram

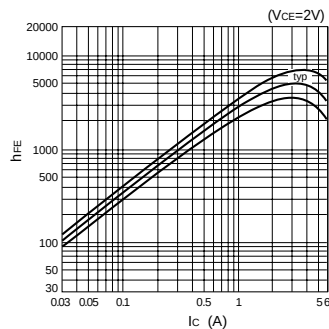


Characteristic curves

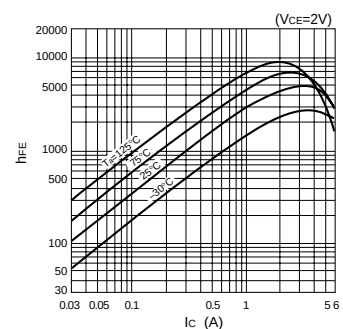
I_C - V_{CE} Characteristics (Typical)



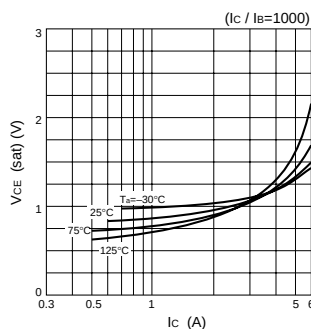
h_{FE} - I_C Characteristics (Typical)



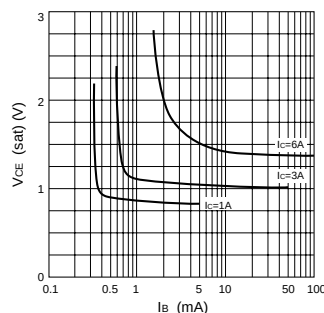
h_{FE} - I_C Temperature Characteristics (Typical)



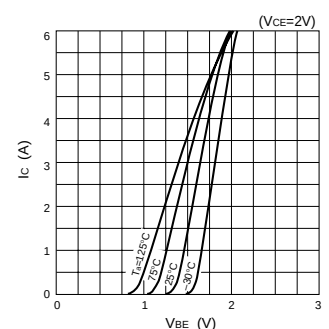
$V_{CE(sat)}$ - I_C Temperature Characteristics (Typical)



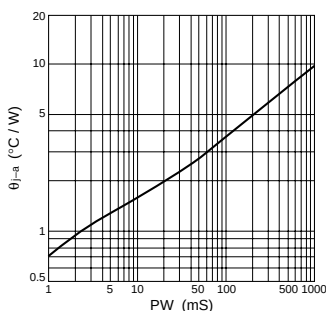
$V_{CE(sat)}$ - I_B Characteristics (Typical)



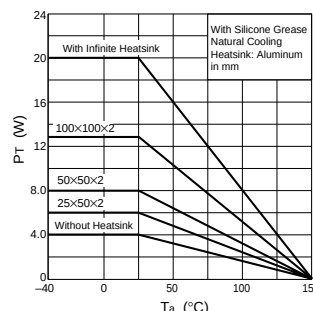
I_C - V_{BE} Temperature Characteristics (Typical)



θ_{JA} - P_W Characteristics



P_T - T_a Characteristics



Safe Operating Area (SOA)

