

Absolute maximum ratings

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

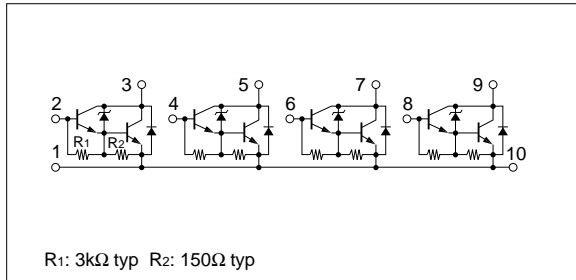
Symbol	Ratings	Unit
V_{CB0}	60 ± 10	V
V_{CE0}	60 ± 10	V
V_{EB0}	6	V
I_c	6	A
I_B	1	A
P_T	4 ($T_a=25^\circ\text{C}$)	W
	20 ($T_c=25^\circ\text{C}$)	
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

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

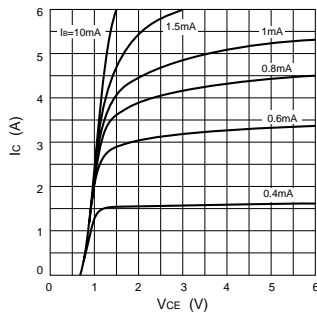
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CB0}			10	μA	$V_{CB}=50\text{V}$
I_{EB0}			10	mA	$V_{EB}=6\text{V}$
V_{CE0}	50	60	70	V	$I_c=50\text{mA}$
h_{FE}	2000		15000		$V_{CE}=2\text{V}, I_c=3\text{A}$
$V_{CE(sat)}$			1.5	V	$I_c=3\text{A}, I_B=10\text{mA}$
$V_{BE(sat)}$			2.0	V	
$E_{S/B}$	200			mJ	$V_{CC}=20\text{V}, L=10\text{mH}, I_c=6.4\text{A}$

Equivalent circuit diagram

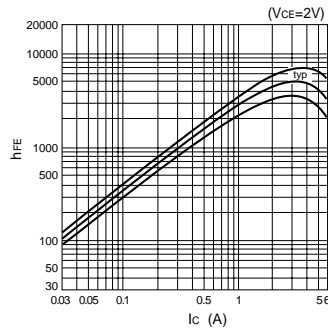


Characteristic curves

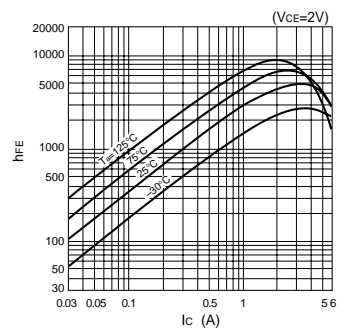
I_c - V_{CE} Characteristics (Typical)



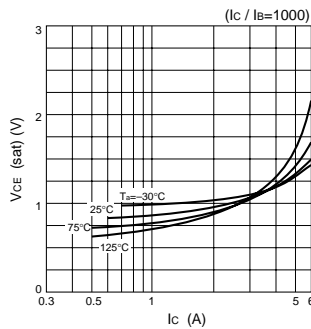
h_{FE} - I_c Characteristics (Typical)



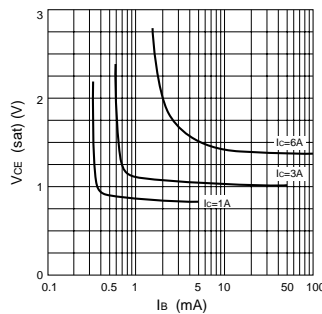
h_{FE} - I_c Temperature Characteristics (Typical)



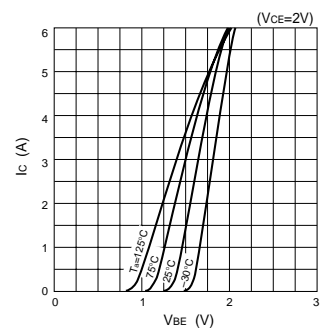
$V_{CE(sat)}$ - I_c Temperature Characteristics (Typical)



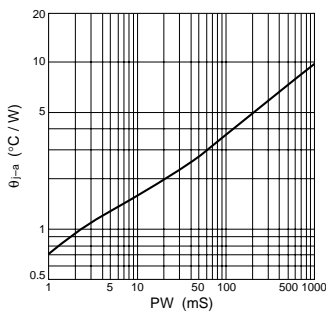
$V_{CE(sat)}$ - I_B Characteristics (Typical)



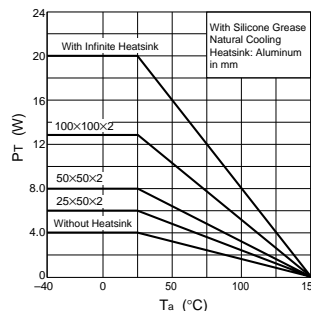
I_c - V_{BE} Temperature Characteristics (Typical)



θ_{j-a} -PW Characteristics



P_T - T_a Characteristics



Safe Operating Area (SOA)

