

Absolute maximum ratings

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

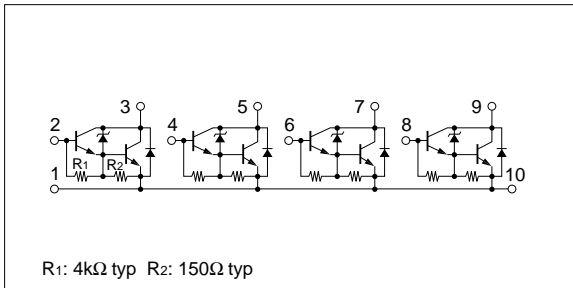
Symbol	Ratings	Unit
V_{CB0}	100±15	V
V_{CE0}	100±15	V
V_{EB0}	6	V
I_c	2	A
I_{cP}	4 (PW≤1ms, $D_u\leq 25\%$)	A
I_B	0.5	A
P_T	4 ($T_a=25^\circ\text{C}$)	W
	20 ($T_c=25^\circ\text{C}$)	
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

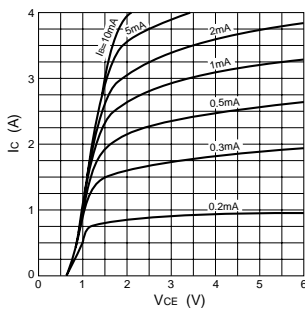
($T_a=25^\circ\text{C}$)

Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CB0}			10	μA	$V_{CB}=85\text{V}$
I_{EB0}			5	mA	$V_{EB}=6\text{V}$
V_{CE0}	85	100	115	V	$I_c=10\text{mA}$
h_{FE}	2000	5000	12000		$V_{CE}=4\text{V}$, $I_c=1\text{A}$
$V_{CE(sat)}$			1.5	V	$I_c=1\text{A}$, $I_B=2\text{mA}$
$V_{BE(sat)}$			2.2	V	
V_{FEC}			1.8	V	$I_{FEC}=1\text{A}$
t_{on}		0.6		μs	$V_{CC}\doteq 30\text{V}$, $I_c=1\text{A}$, $I_{B1}=-I_{B2}=2\text{mA}$
t_{stg}		3.0		μs	
t_f		1.0		μs	

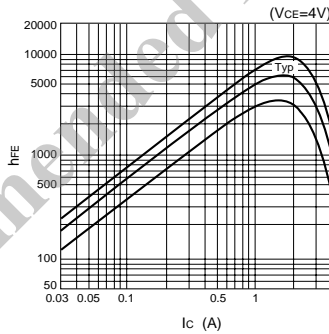
Equivalent circuit diagram



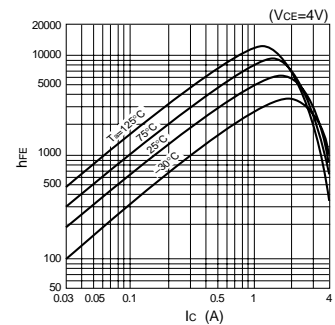
I_c - V_{CE} Characteristics (Typical)



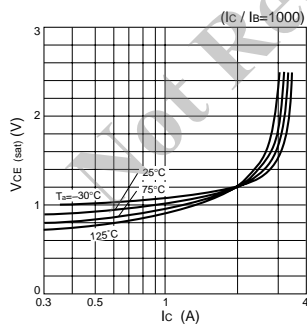
h_{FE} - I_c Characteristics (Typical)



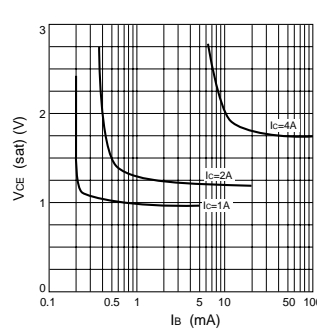
h_{FE} - I_c Temperature Characteristics (Typical)



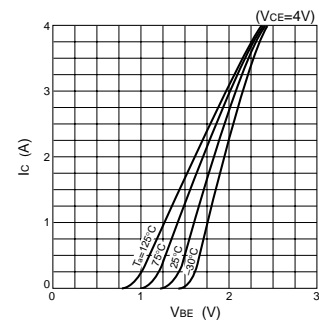
$V_{CE(sat)}$ - I_c Temperature Characteristics (Typical)



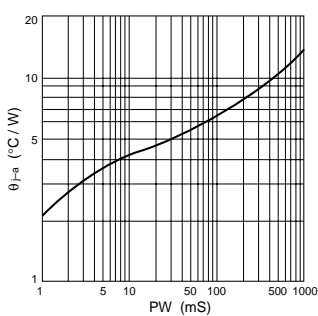
$V_{CE(sat)}$ - I_B Characteristics (Typical)



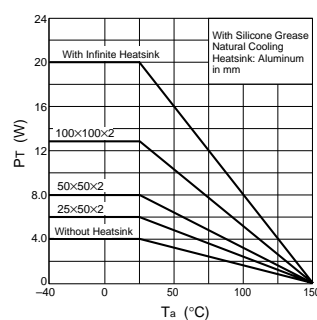
I_c - V_{BE} Temperature Characteristics (Typical)



θ_{j-a} -PW Characteristics



P_T - T_a Characteristics



Safe Operating Area (SOA)

