

#### Absolute maximum ratings

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

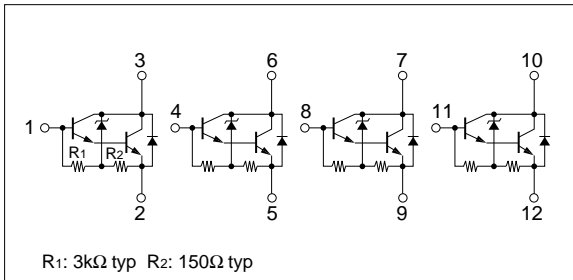
Symbol	Ratings	Unit
$V_{CB0}$	60±10	V
$V_{CEO}$	60±10	V
$V_{EBO}$	6	V
$I_c$	4	A
$I_{cP}$	6 (PW≤10ms, $D_u\leq 50\%$ )	A
$I_B$	0.5	A
$P_T$	5 ( $T_a=25^\circ\text{C}$ )	W
	40 ( $T_c=25^\circ\text{C}$ )	
$T_j$	150	$^\circ\text{C}$
$T_{stg}$	-40 to +150	$^\circ\text{C}$

#### Electrical characteristics

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

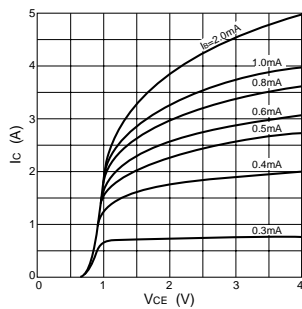
Symbol	Specification			unit	Conditions
	min	typ	max		
$I_{cB0}$			10	$\mu\text{A}$	$V_{CB}=50\text{V}$
$I_{EBO}$			10	mA	$V_{EB}=6\text{V}$
$V_{CEO}$	50	60	70	V	$I_c=10\text{mA}$
$h_{FE}$	2000				$V_{CE}=4\text{V}$ , $I_c=3\text{A}$
$V_{CE(sat)}$			1.5	V	$I_c=3\text{A}$ , $I_B=10\text{mA}$

#### Equivalent circuit diagram

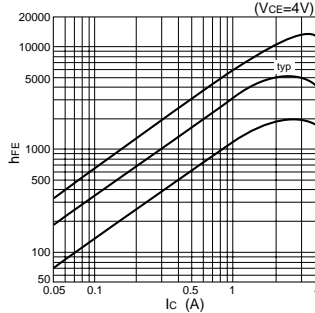


#### Characteristic curves

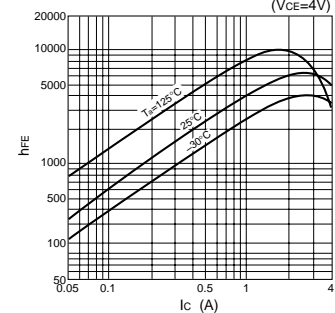
**$I_c$ - $V_{CE}$  Characteristics (Typical)**



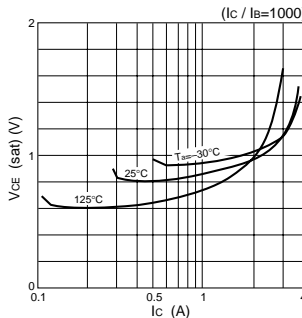
**$h_{FE}$ - $I_c$  Characteristics (Typical)**



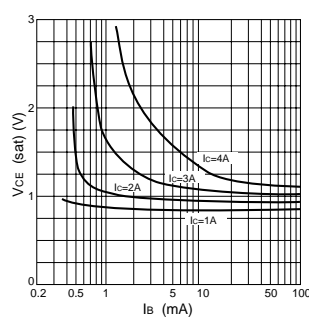
**$h_{FE}$ - $I_c$  Temperature Characteristics (Typical)**



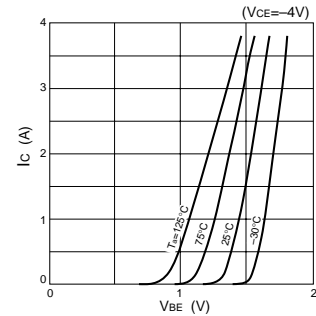
**$V_{CE(sat)}$ - $I_c$  Temperature Characteristics (Typical)**



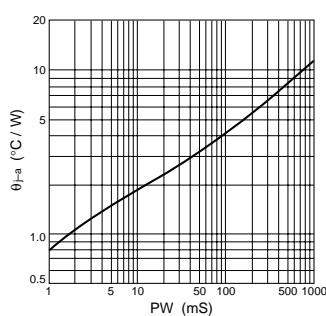
**$V_{CE(sat)}$ - $I_B$  Characteristics (Typical)**



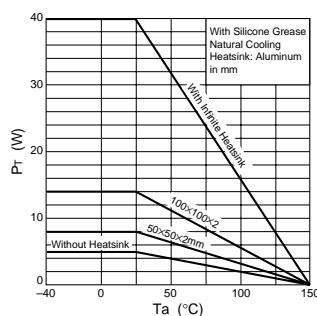
**$I_c$ - $V_{BE}$  Temperature Characteristics (Typical)**



**$\theta_{j-a}$ -PW Characteristics**



**$P_T$ - $T_a$  Characteristics**



**Safe Operating Area (SOA)**

