

## Absolute maximum ratings

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

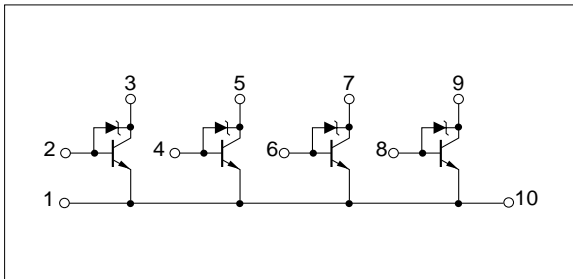
Symbol	Ratings	Unit
$V_{CB0}$	35±5	V
$V_{CE0}$	35±5	V
$V_{EBO}$	6	V
$I_C$	3	A
$I_B$	1	A
$P_T$	4 ( $T_a=25^\circ\text{C}$ )	W
	20 ( $T_c=25^\circ\text{C}$ )	
$T_j$	150	$^\circ\text{C}$
$T_{stg}$	-40 to +150	$^\circ\text{C}$

## Electrical characteristics

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

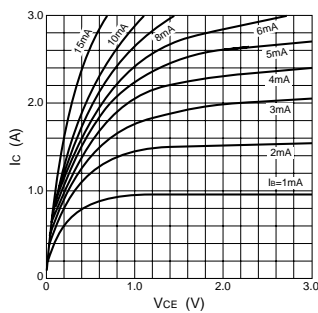
Symbol	Specification			Unit	Conditions
	min	typ	max		
$I_{CB0}$			10	$\mu\text{A}$	$V_{CB}=30\text{V}$
$I_{EBO}$			10	$\mu\text{A}$	$V_{EB}=6\text{V}$
$V_{CE0}$	30		40	V	$I_C=25\text{mA}$
$h_{FE}$	500				$V_{CE}=4\text{V}$ , $I_C=0.5\text{A}$
$V_{CE(sat)}$			0.5	V	$I_C=1\text{A}$ , $I_B=5\text{mA}$

## Equivalent circuit diagram

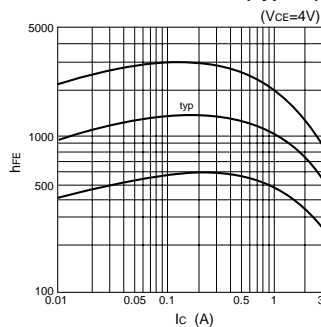


## Characteristic curves

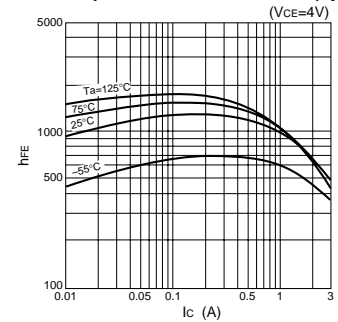
$I_C$ - $V_{CE}$  Characteristics (Typical)



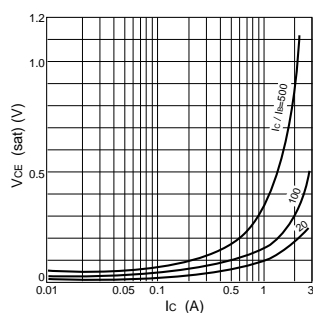
$h_{FE}$ - $I_C$  Characteristics (Typical)



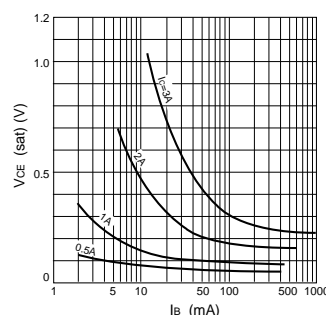
$h_{FE}$ - $I_C$  Temperature Characteristics (Typical)



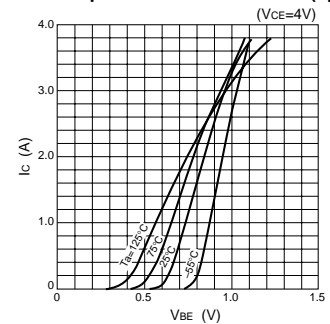
$V_{CE(sat)}$ - $I_C$  Characteristics (Typical)



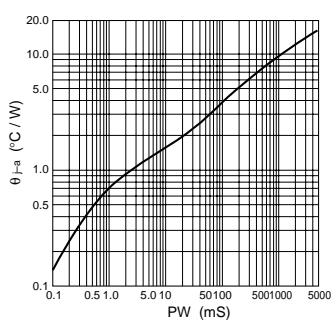
$V_{CE(sat)}$ - $I_B$  Characteristics (Typical)



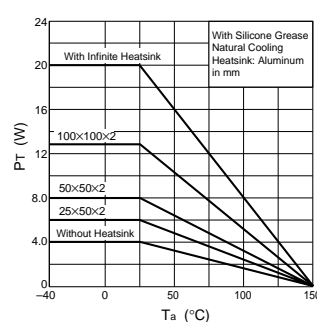
$I_C$ - $V_{BE}$  Temperature Characteristics (Typical)



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



$P_T$ - $T_a$  Characteristics



Safe Operating Area (SOA)

