

## Absolute maximum ratings

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

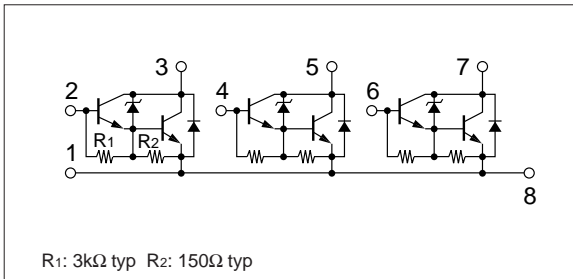
Symbol	Ratings	Unit
$V_{CB0}$	60±10	V
$V_{CE0}$	60±10	V
$V_{EB0}$	6	V
$I_C$	4	A
$I_{CP}$	8 (PW≤10ms, $D_u\leq 50\%$ )	A
$P_T$	3 ( $T_a=25^\circ\text{C}$ )	W
	15 ( $T_c=25^\circ\text{C}$ )	
$T_j$	150	$^\circ\text{C}$
$T_{stg}$	-40 to +150	$^\circ\text{C}$

## Electrical characteristics

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

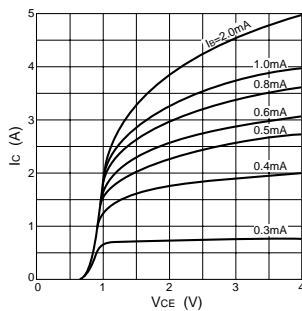
Symbol	Specification			Unit	Conditions
	min	typ	max		
$I_{CB0}$			100	$\mu\text{A}$	$V_{CB}=50\text{V}$
$I_{EB0}$			10	mA	$V_{EB}=6\text{V}$
$V_{CE0}$	50	60	70	V	$I_C=10\text{mA}$
$h_{FE}$	1000				$V_{CE}=4\text{V}$ , $I_C=3\text{A}$
$V_{CE(sat)}$			2.0	V	$I_C=3\text{A}$ , $I_B=10\text{mA}$
$t_{on}$		1.0		$\mu\text{s}$	$V_{CC}\approx 30\text{V}$ , $I_C=3\text{A}$ , $I_{B1}=-I_{B2}=10\text{mA}$
$t_{stg}$		4.0		$\mu\text{s}$	
$t_f$		1.5		$\mu\text{s}$	

## Equivalent circuit diagram

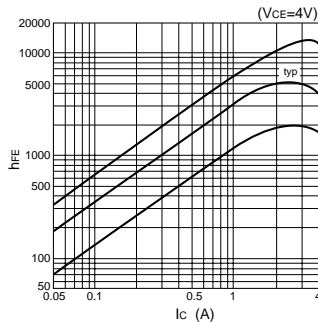


## Characteristic curves

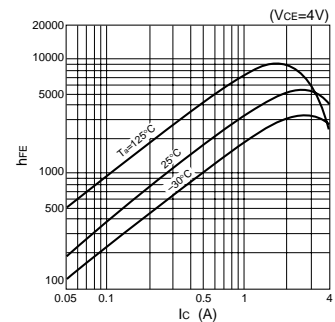
$I_C$ - $V_{CE}$  Characteristics (Typical)



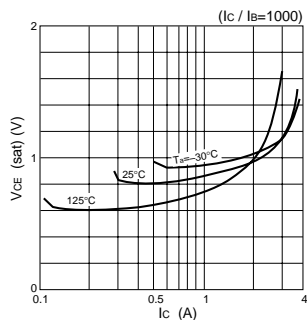
$h_{FE}$ - $I_C$  Characteristics (Typical)



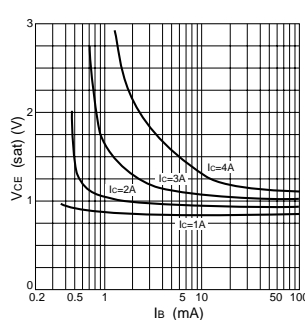
$h_{FE}$ - $I_C$  Temperature Characteristics (Typical)



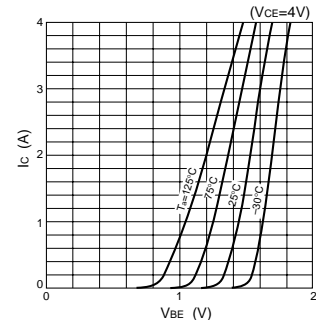
$V_{CE(sat)}$ - $I_C$  Temperature Characteristics (Typical)



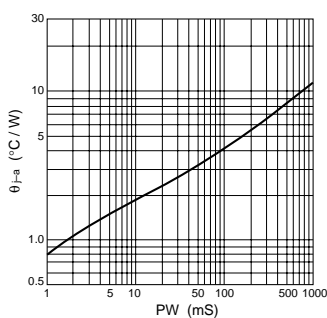
$V_{CE(sat)}$ - $I_B$  Characteristics (Typical)



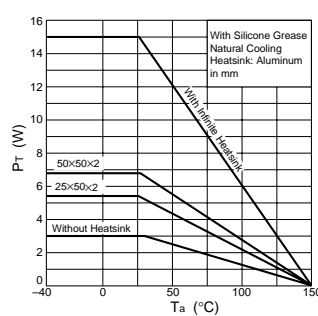
$I_C$ - $V_{BE}$  Temperature Characteristics (Typical)



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



$P_T$ - $T_a$  Characteristics



Safe Operating Area (SOA)

