

### Absolute maximum ratings

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

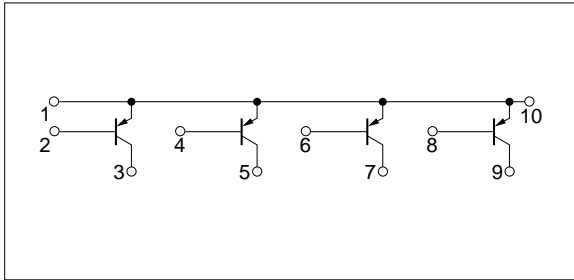
Symbol	Ratings	Unit
$V_{CB0}$	-60	V
$V_{CEO}$	-60	V
$V_{EBO}$	-6	V
$I_c$	-3	A
$I_{CP}$	-6 (PW $\leq$ 10ms, Du $\leq$ 50%)	A
$P_T$	4 ( $T_a=25^\circ\text{C}$ )	W
	20 ( $T_c=25^\circ\text{C}$ )	
$T_j$	150	$^\circ\text{C}$
$T_{stg}$	-40 to +150	$^\circ\text{C}$

### Electrical characteristics

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

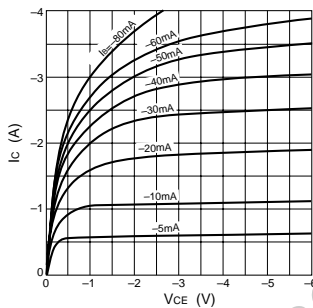
Symbol	Specification			Unit	Conditions
	min	typ	max		
$I_{CB0}$			-100	$\mu\text{A}$	$V_{CB}=-60\text{V}$
$I_{EBO}$			-100	$\mu\text{A}$	$V_{EB}=-6\text{V}$
$V_{CEO}$	-60			V	$I_c=-25\text{mA}$
$h_{FE}$	40				$V_{CE}=-4\text{V}$ , $I_c=-1\text{A}$
$V_{CE(sat)}$			-1.0	V	$I_c=-2\text{A}$ , $I_B=-0.2\text{A}$
$t_{on}$		0.25		$\mu\text{s}$	$V_{CC}=-12\text{V}$ , $I_c=-2\text{A}$ ,
$t_{stg}$		0.75		$\mu\text{s}$	$I_B=-I_{B2}=-0.2\text{A}$
$t_f$		0.25		$\mu\text{s}$	

### Equivalent circuit diagram

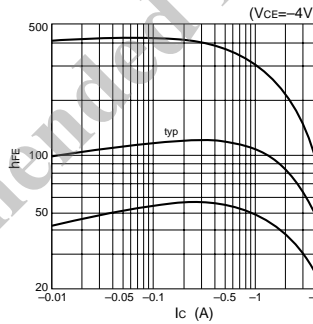


### Characteristic curves

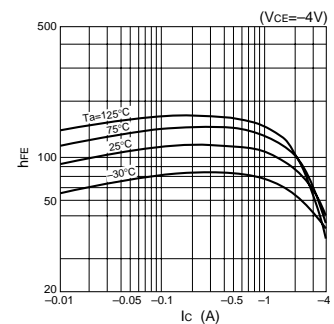
**$I_c$ - $V_{CE}$  Characteristics (Typical)**



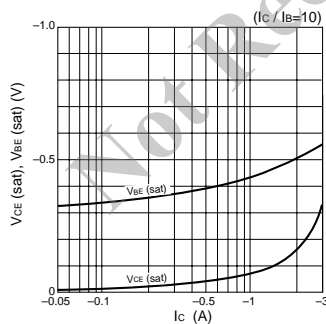
**$h_{FE}$ - $I_c$  Characteristics (Typical)**



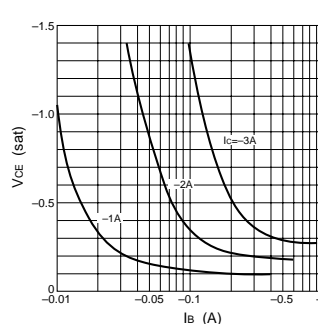
**$h_{FE}$ - $I_c$  Temperature Characteristics (Typical)**



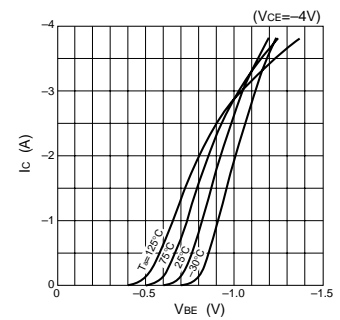
**$V_{CE(sat)}$ ,  $V_{BE(sat)}$ - $I_c$  Characteristics (Typical)**



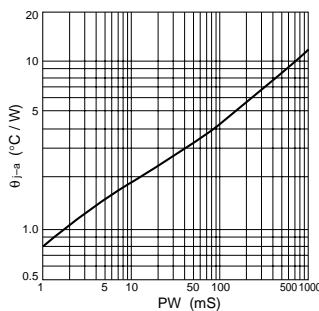
**$V_{CE(sat)}$ - $I_B$  Characteristics (Typical)**



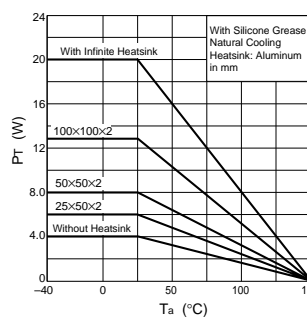
**$I_c$ - $V_{BE}$  Temperature Characteristics (Typical)**



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



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



**Safe Operating Area (SOA)**

