

#### Absolute maximum ratings

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

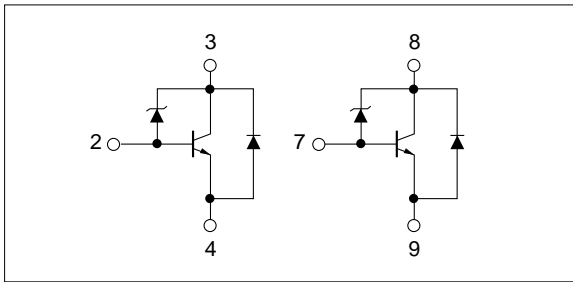
Symbol	Ratings	Unit
$V_{CBO}$	60±10	V
$V_{CEO}$	60±10	V
$V_{EBO}$	6	V
$I_c$	±6	A
$I_{CP}$	±10 (PW≤1ms, Du≤50%)	A
$P_T$	3.2 ( $T_a=25^\circ\text{C}$ )	W
	18 ( $T_c=25^\circ\text{C}$ )	
$T_j$	150	$^\circ\text{C}$
$T_{stg}$	-40 to +150	$^\circ\text{C}$

#### Electrical characteristics

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

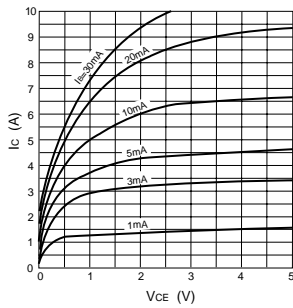
Symbol	Specification			Ratings	Unit
	min	typ	max		
$I_{CBO}$			10	$\mu\text{A}$	$V_{CB}=50\text{V}$
$I_{EBO}$			10	$\mu\text{A}$	$V_{EB}=6\text{V}$
$V_{CEO}$	50	60	70	V	$I_c=50\text{mA}$
$h_{FE}$	700	1500	3000		$V_{CE}=1\text{V}, I_c=1\text{A}$
$V_{CE(sat)}$		0.09	0.15	V	$I_c=1.5\text{A}, I_b=15\text{mA}$
$V_{FEC}$		1.25	1.5	V	$I_{FEC}=6\text{A}$
$E_S/B$	200			mJ	L=10mH, Single pulse

#### Equivalent circuit diagram

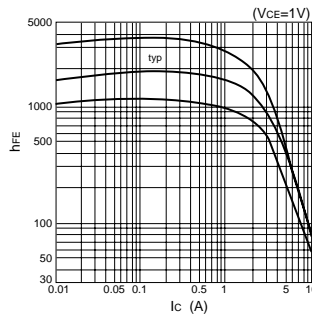


#### Characteristic curves

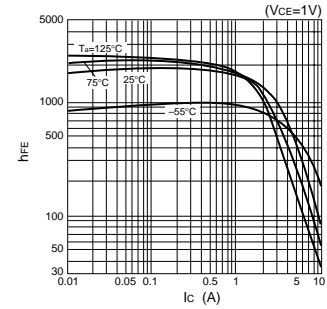
$I_c$ - $V_{CE}$  Characteristics (Typical)



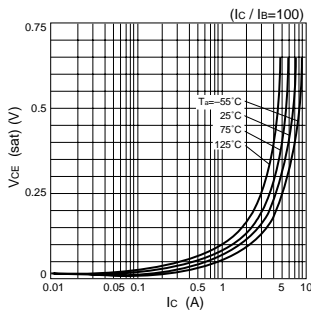
$h_{FE}$ - $I_c$  Characteristics (Typical)



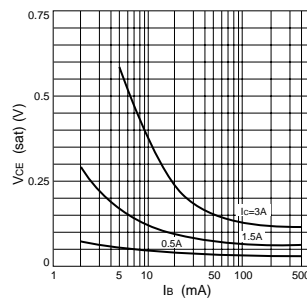
$h_{FE}$ - $I_c$  Temperature Characteristics (Typical)



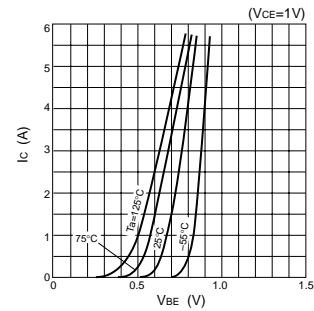
$V_{CE(sat)}$ - $I_c$  Temperature Characteristics (Typical)



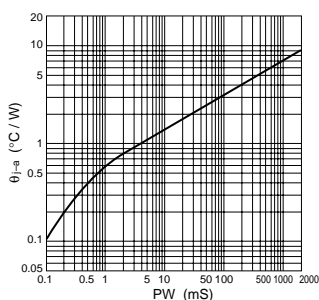
$V_{CE(sat)}$ - $I_b$  Characteristics (Typical)



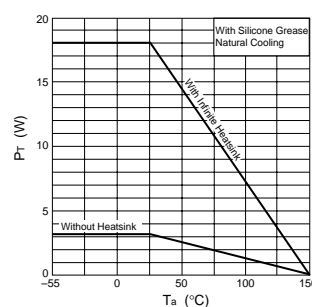
$I_c$ - $V_{BE}$  Temperature Characteristics (Typical)



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



$P_T$ - $T_a$  Characteristics



Safe Operating Area (SOA)

