

Absolute maximum ratings

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

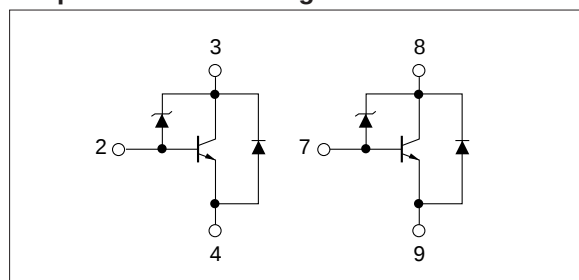
Symbol	Ratings	Unit
V_{CBO}	60 ± 10	V
V_{CEO}	60 ± 10	V
V_{EBO}	6	V
I_C	± 6	A
I_{CP}	± 10 ($PW \leq 1\text{ms}$, $D_u \leq 50\%$)	A
P_T	3.2 ($T_a=25^\circ\text{C}$)	W
	18 ($T_c=25^\circ\text{C}$)	
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$

Electrical characteristics

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

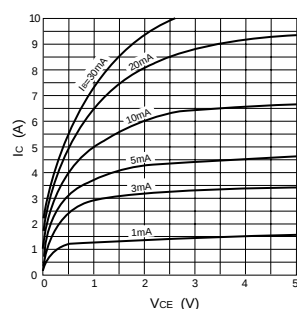
Symbol	Specification			Ratings	Unit
	min	typ	max		
I_{CBO}			10	μA	$V_{CB}=50\text{V}$
I_{EBO}			10	μA	$V_{EB}=6\text{V}$
V_{CEO}	50	60	70	V	$I_C=50\text{mA}$
h_{FE}	700	1500	3000		$V_{CE}=1\text{V}$, $I_C=1\text{A}$
$V_{CE(sat)}$		0.09	0.15	V	$I_C=1.5\text{A}$, $I_B=15\text{mA}$
V_{FEC}		1.25	1.5	V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

Equivalent circuit diagram

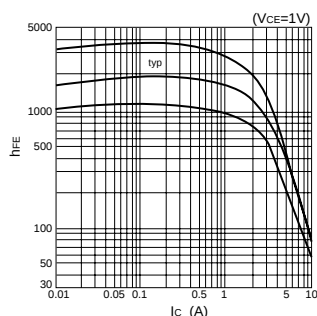


Characteristic curves

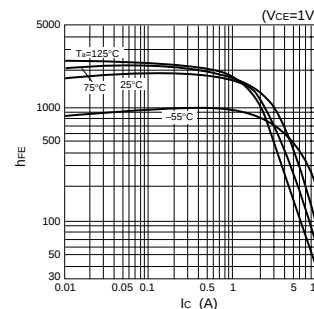
I_C - V_{CE} Characteristics (Typical)



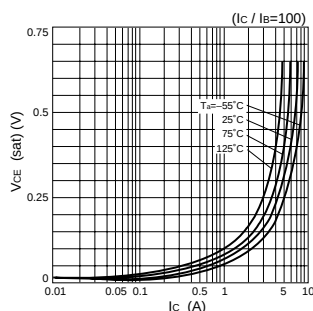
h_{FE} - I_C Characteristics (Typical)



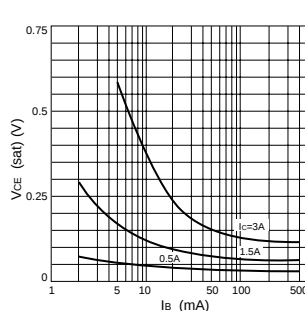
h_{FE} - I_C Temperature Characteristics (Typical)



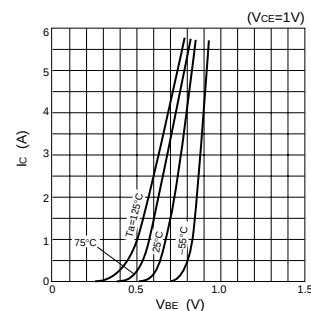
$V_{CE(sat)}$ - I_C Temperature Characteristics (Typical)



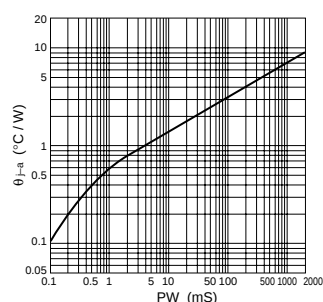
$V_{CE(sat)}$ - I_B Characteristics (Typical)



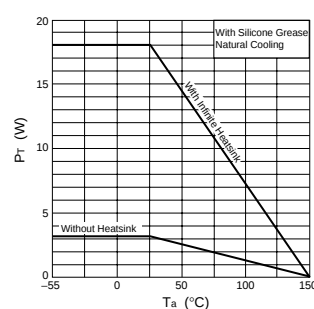
I_C - V_{BE} Temperature Characteristics (Typical)



θ_{JA} - PW Characteristics



P_T - T_a Characteristics



Safe Operating Area (SOA)

