

Absolute maximum ratings

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

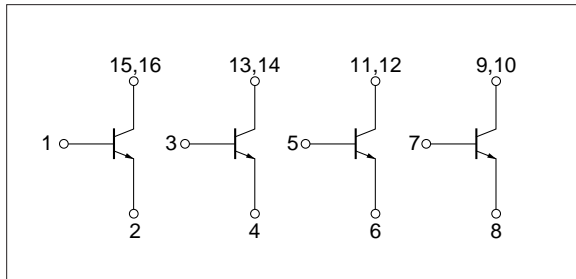
Symbol	Ratings	Unit
V_{CB0}	80	V
V_{CEO}	50	V
V_{EBO}	6	V
I_c	2	A
I_{cP}	3 (PW \leq 1ms, Du \leq 10%)	A
I_B	0.5	A
P_T	3 ($T_a=25^\circ\text{C}$)	W
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$
θ_{j-a}	41.6	$^\circ\text{C/W}$

Electrical characteristics

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

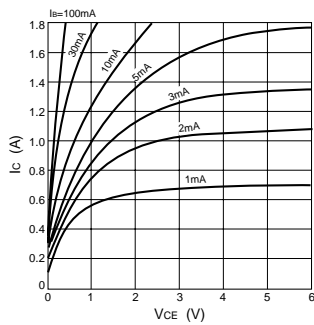
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CB0}			10	μA	$V_{CB}=80\text{V}$
I_{CES}			100	μA	$V_{CES}=50\text{V}$
I_{EBO}			10	μA	$V_{EB}=6\text{V}$
V_{CEO}	50			V	$I_c=10\text{mA}$
h_{FE}	500		2000		$V_{CE}=4\text{V}, I_c=0.5\text{A}$
$V_{CE(sat)}$			0.4	V	$I_c=0.5\text{A}, I_B=5\text{mA}$
$V_{BE(sat)}$			1.1	V	
f_T		40		MHz	$V_{CE}=12\text{V}, I_E=-0.1\text{A}$

Equivalent circuit diagram

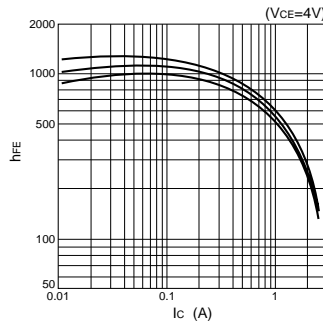


Characteristic curves

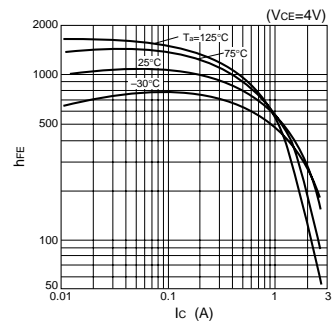
I_c - V_{CE} Characteristics (Typical)



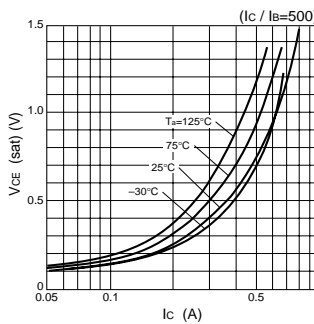
h_{FE} - I_c Characteristics (Typical)



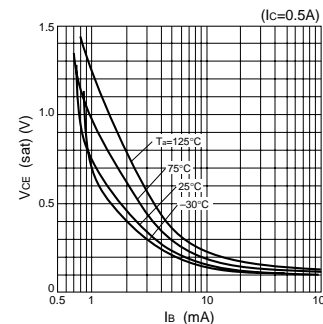
h_{FE} - I_c Temperature Characteristics (Typical)



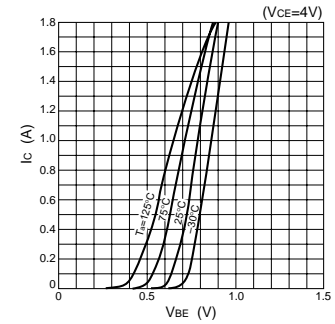
$V_{CE(sat)}$ - I_c Temperature Characteristics (Typical)



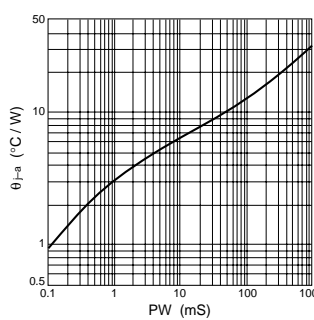
$V_{CE(sat)}$ - I_B Temperature Characteristics (Typical)



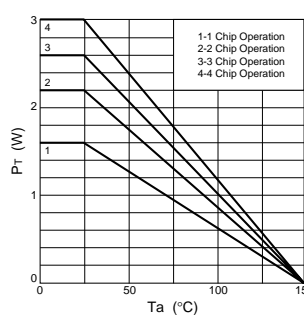
I_c - V_{BE} Temperature Characteristics (Typical)



θ_{j-a} -PW Characteristics



P_T - T_a Characteristics



Safe Operating Area (SOA)

