

Absolute maximum ratings

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

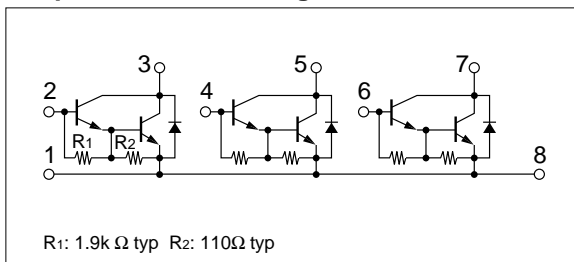
Symbol	Ratings	Unit
V_{CB0}	100	V
V_{CEO}	100	V
V_{EBO}	5	V
I_c	5	A
I_{CP}	8 (PW \leq 1ms, $D_u\leq$ 25%)	A
I_B	0.1	A
P_T	3 ($T_a=25^\circ\text{C}$)	W
	15 ($T_c=25^\circ\text{C}$)	
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$
θ_{j-c}	8.33	$^\circ\text{C/W}$

Electrical characteristics

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

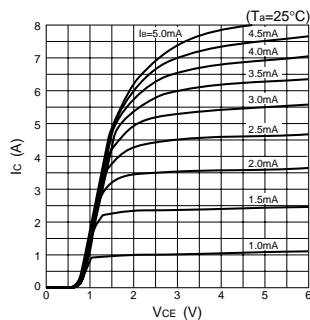
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CBO}			10	μA	$V_{CB}=100\text{V}$
I_{EBO}	1.4	2.5	5.0	mA	$V_{EB}=5\text{V}$
V_{CEO}	100			V	$I_c=30\text{mA}$
h_{FE}	1000				$V_{CE}=3\text{V}$, $I_c=3\text{A}$
$V_{CE(sat)}$		1.1	2.0	V	$I_c=3\text{A}$, $I_B=12\text{mA}$
$V_{BE(sat)}$		1.8	2.5	V	
V_{FEC}		1.2		V	$I_{FEC}=3\text{A}$
t_{on}		0.25		μs	$V_{CC}\doteq 30\text{V}$, $I_c=3\text{A}$,
t_{stg}		4.0		μs	
t_f		0.55		μs	
C_{ob}		50		pF	$V_{CB}=50\text{V}$, $f=1\text{MHz}$

Equivalent circuit diagram

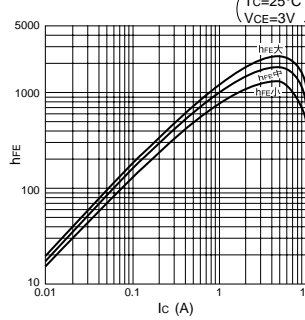


Characteristic curves

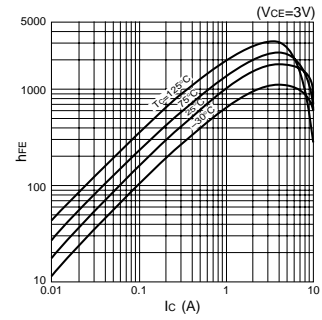
I_c - V_{CE} Characteristics (Typical)



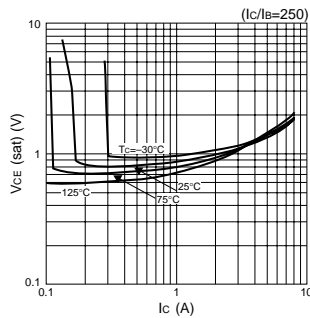
h_{FE} - I_c Characteristics (Typical)



h_{FE} - I_c Temperature Characteristics (Typical)

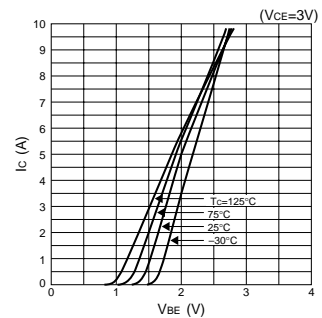


$V_{CE(sat)}$ - I_c Temperature Characteristics (Typical)

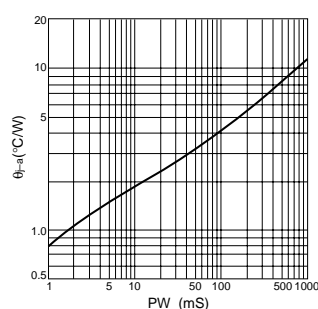


$V_{CE(sat)}$ - I_B Characteristics (Typical)

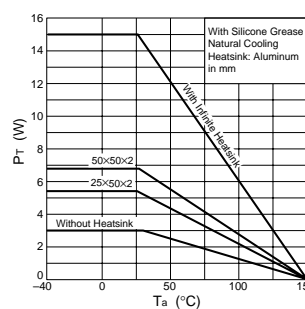
I_c - V_{BE} Temperature Characteristics (Typical)



θ_{j-a} -PW Characteristics



P_T - T_a Characteristics



Safe Operating Area (SOA)

