

Absolute maximum ratings

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

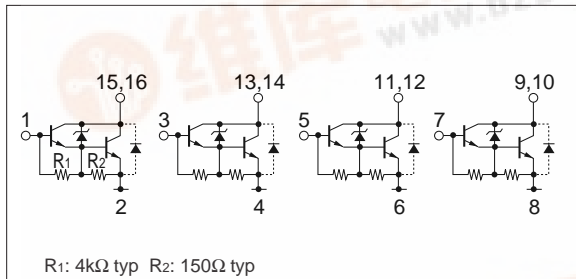
Symbol	Ratings	Unit
V_{CBO}	100±15	V
V_{CEO}	100±15	V
V_{EBO}	6	V
I_c	1.5	A
I_{CP}	2.5 (PW≤1ms, Du≤10%)	A
I_B	0.1	A
P_T	3 ($T_a=25^\circ\text{C}$)	W
T_j	150	$^\circ\text{C}$
T_{stg}	-40 to +150	$^\circ\text{C}$
θ_{j-a}	41.6	$^\circ\text{C}/\text{W}$

Electrical characteristics

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

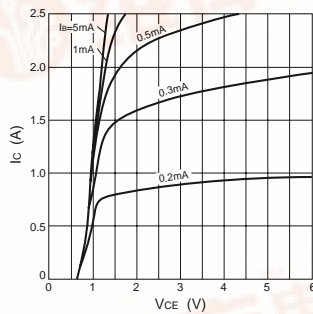
Symbol	Specification			Unit	Conditions
	min	typ	max		
I_{CBO}			10	μA	$V_{CB}=85\text{V}$
I_{EBO}	1		3	mA	$V_{EB}=6\text{V}$
V_{CEO}	85	100	115	V	$I_c=10\text{mA}$
h_{FE}	2000	5000	12000		$V_{CE}=4\text{V}, I_c=1\text{A}$
$V_{CE(sat)}$		1.0	1.3	V	$I_c=1\text{A}, I_B=2\text{mA}$
$V_{BE(sat)}$		1.7	2.2	V	
V_{FEC}		1.2	1.8	V	$I_{FEC}=1\text{A}$
t_{on}		0.6		μs	$V_{CC}=30\text{V}, I_c=1\text{A}, I_{B1}=-I_{B2}=2\text{mA}$
t_{stg}		3.0		μs	
t_f		1.0		μs	
f_T		30		MHz	$V_{CE}=12\text{V}, I_E=-0.1\text{A}$
C_{ob}		20		pF	$V_{CB}=10\text{V}, f=1\text{MHz}$

Equivalent circuit diagram

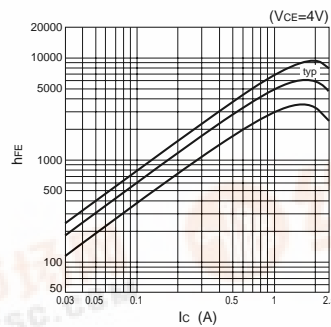


Characteristic curves

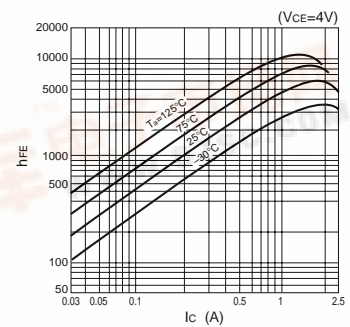
I_c - V_{CE} Characteristics (Typical)



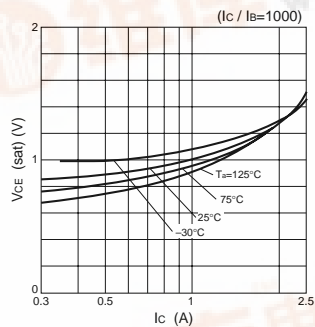
h_{FE} - I_c Characteristics (Typical)



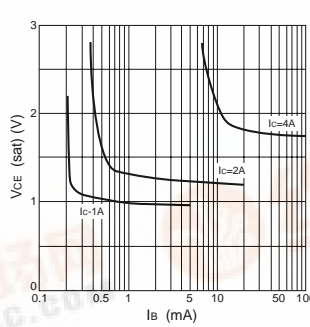
h_{FE} - I_c Temperature Characteristics (Typical)



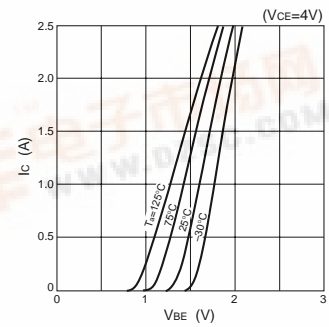
$V_{CE(sat)}$ - I_c Temperature Characteristics (Typical)



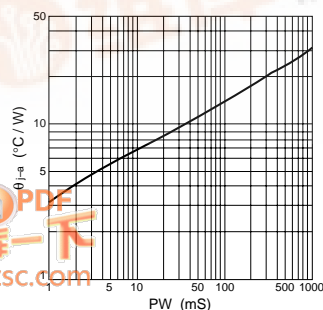
$V_{CE(sat)}$ - I_B Characteristics (Typical)



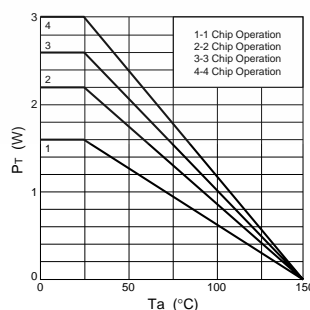
I_c - V_{BE} Temperature Characteristics (Typical)



θ_{j-a} -PW Characteristics



P_T - T_a Characteristics



Safe Operating Area (SOA)

