

Absolute maximum ratings

(Ta=25°C)

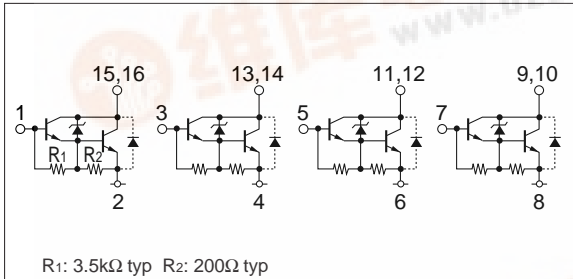
Symbol	Ratings	Unit
V _{CB0}	60±10	V
V _{CEO}	60±10	V
V _{EBO}	6	V
I _c	1.5	A
I _{CP}	2.5 (PW≤1ms, Du≤10%)	A
I _B	0.1	A
P _T	3 (Ta=25°C)	W
T _j	150	°C
T _{stg}	-40 to +150	°C
θ _{j-a}	41.6	°C/W

Electrical characteristics

(Ta=25°C)

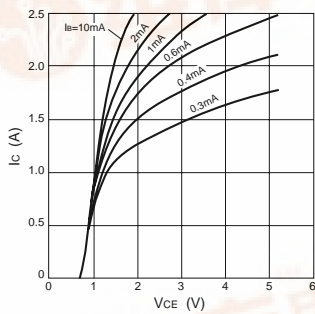
Symbol	Specification			Unit	Conditions
	min	typ	max		
I _{CB0}			10	μA	V _{CB} =50V
I _{EBO}	1.1		3.5	mA	V _{EB} =6V
V _{CEO}	50	60	70	V	I _c =10mA
h _{FE}	2000	5000	12000		V _{CE} =4V, I _c =1A
V _{CE(sat)}		1.2	1.4	V	I _c =1A, I _B =2mA
V _{BE(sat)}		1.8	2.2	V	
V _{FEC}		1.3	1.8	V	I _{FEC} =1A
t _{on}		0.5		μs	V _{CC} ≅30V, I _c =1A,
t _{stg}		4.0		μs	
t _f		1.0		μs	I _{B1} =-I _{B2} =2mA
f _T		50		MHz	
C _{ob}		25		pF	V _{CB} =10V, f=1MHz

Equivalent circuit diagram

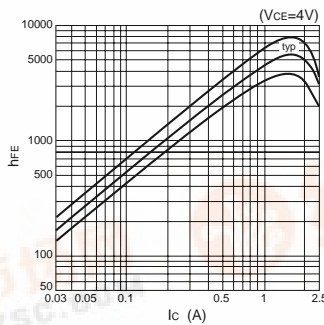


Characteristic curves

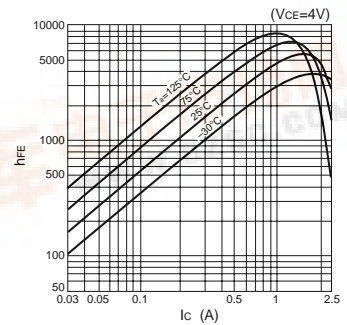
I_c-V_{CE} Characteristics (Typical)



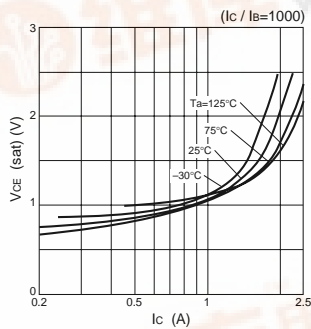
h_{FE}-I_c Characteristics (Typical)



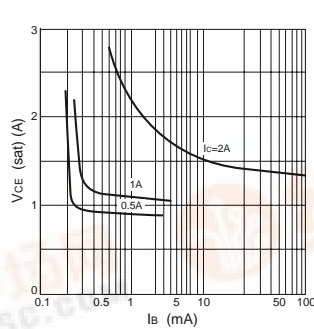
h_{FE}-I_c Temperature Characteristics (Typical)



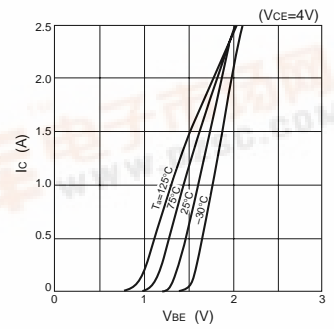
V_{CE(sat)}-I_c Temperature Characteristics (Typical)



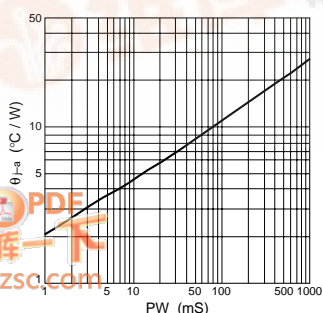
V_{CE(sat)}-I_B Characteristics (Typical)



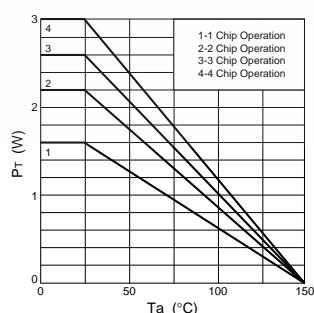
I_c-V_{BE} Temperature Characteristics (Typical)



θ_{j-a}-PW Characteristics



P_T-T_a Characteristics



Safe Operating Area (SOA)

