

Absolute maximum ratings

(Ta=25°C)

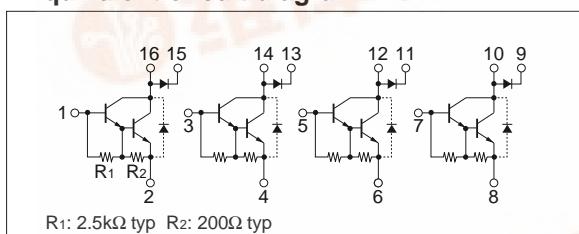
Symbol	Ratings	Unit
V _{CBO}	120	V
V _{CEO}	100	V
V _{EBO}	6	V
I _c	1.5	A
I _{CP}	2.5 (PW≤1ms, Du≤10%)	A
I _B	0.2	A
I _F	1.5	A
I _{FSM}	2.5 (PW≤0.5ms, Du≤10%)	A
V _R	120	V
P _T	3 (Ta=25°C)	W
T _j	150	°C
T _{stg}	-40 to +150	°C

Electrical characteristics

(Ta=25°C)

Symbol	Specification			Unit	Conditions
	min	typ	max		
I _{CBO}			10	μA	V _{CB} =120V
I _{EBO}			3	mA	V _{EB} =6V
V _{CEO}	100			V	I _c =10mA
h _{FE}	2000	6000	12000		V _{CE} =4V, I _c =1A
V _{CE(sat)}		1.1	1.3	V	
V _{BE(sat)}		1.7	2.2	V	I _c =1A, I _b =2mA
t _{on}		0.5		μs	V _{CC} =30V,
t _{stg}		4.5		μs	I _c =1A,
t _f		1.2		μs	I _{b1} =-I _{b2} =2mA
f _r		50		MHz	V _{CE} =12V, I _e =-0.1A
C _{ob}		20		pF	V _{CB} =10V, f=1MHz

Equivalent circuit diagram



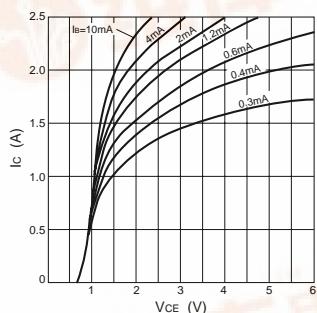
Diode for flyback voltage absorption

(Ta=25°C)

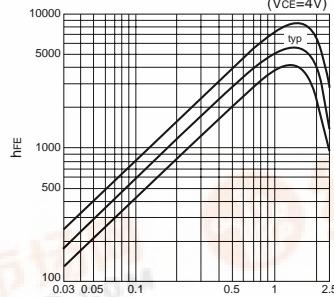
Symbol	Specification			Unit	Conditions
	min	typ	max		
V _R	120			V	I _r =10μA
V _F			1.6	V	I _f =1A
I _R			10	μA	V _R =120V
t _{rr}		100		ns	I _f =±100mA

Characteristic curves

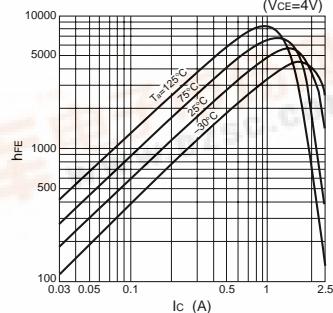
I_c-V_{CE} Characteristics (Typical)



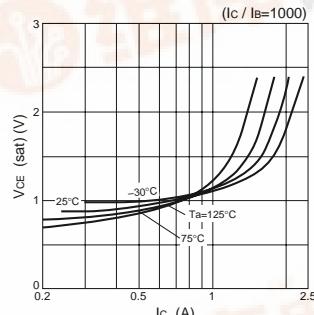
h_{FE}-I_c Characteristics (Typical)



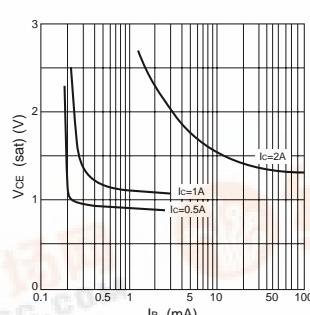
h_{FE}-I_c Temperature Characteristics (Typical)



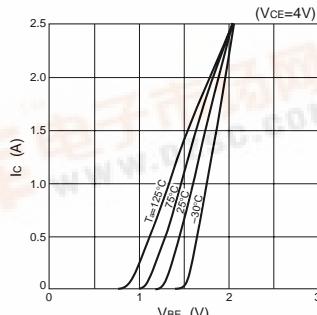
V_{CE(sat)}-I_c Temperature Characteristics (Typical)



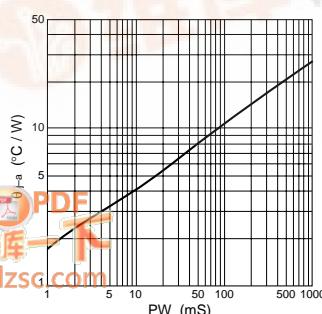
V_{CE(sat)}-I_b Characteristics (Typical)



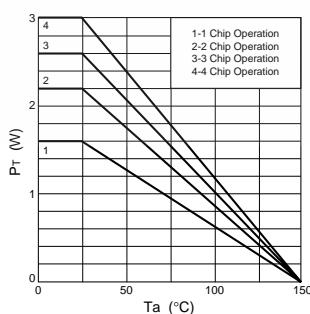
I_c-V_{BE} Temperature Characteristics (Typical)



θ_{j-a}-PW Characteristics



P_T-T_a Characteristics



Safe Operating Area (SOA)

