

Absolute maximum ratings

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

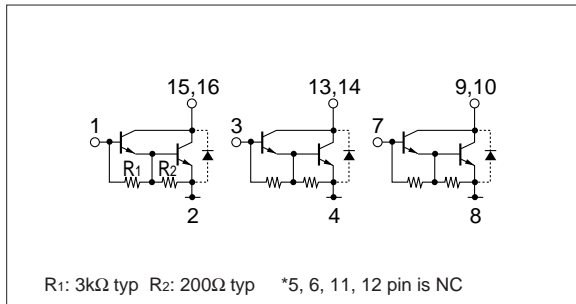
Symbol	Ratings	Unit
V _{CB0}	60	V
V _{CEO}	60	V
V _{EB0}	6	V
I _c	4	A
I _{CP}	6 (PW≤1ms, Du≤50%)	A
I _B	0.5	A
P _T	2.6 ($T_a=25^\circ\text{C}$)	W
T _j	150	°C
T _{stg}	-40 to +150	°C

Electrical characteristics

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

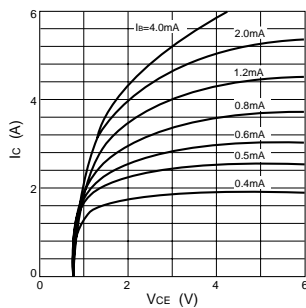
Symbol	Specification			Unit	Conditions
	min	typ	max		
I _{CB0}			10	μA	V _{CB} =60V
I _{EB0}			10	mA	V _{EB} =6V
V _{CEO}	60			V	I _c =10mA
h _{FE}	2000		12000		V _{CE} =4V, I _c =3A
V _{CE(sat)}			1.5	V	I _c =3A, I _B =6mA
V _{BE(sat)}			2.0	V	
V _{FEC}			1.8	V	I _{FEC} =1A
t _{on}		1.0		μs	V _{CC} ≐30V, I _c =3A,
t _{stg}		4.0		μs	I _{B1} =-I _{B2} =10mA
t _f		1.5		μs	
f _T		75		MHz	V _{CE} =12V, I _E =-0.1A
C _{ob}		50		pF	V _{CB} =10V, f=1MHz

Equivalent circuit diagram

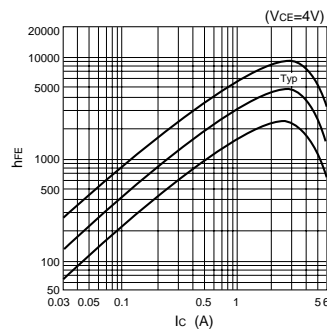


Characteristic curves

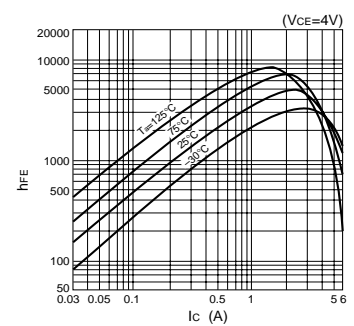
I_c-V_{CE} Characteristics (Typical)



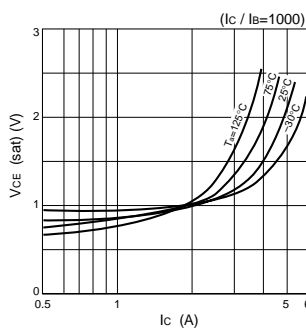
h_{FE}-I_c Characteristics (Typical)



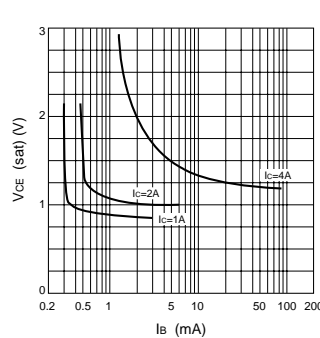
h_{FE}-I_c Temperature Characteristics (Typical)



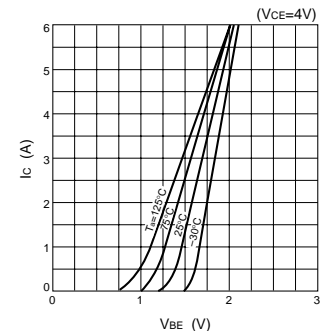
V_{CE(sat)}-I_c Temperature Characteristics (Typical)



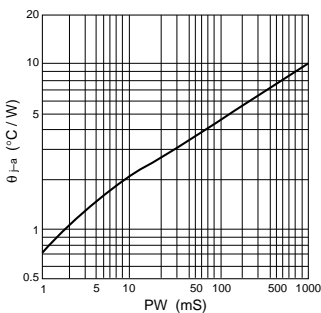
V_{CE(sat)}-I_B Characteristics (Typical)



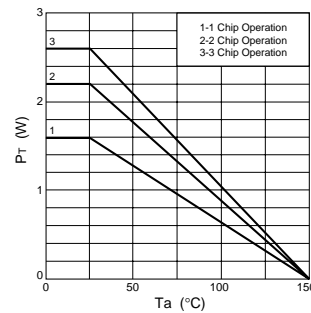
I_c-V_{BE} Temperature Characteristics (Typical)



θ_{j-a}-PW Characteristics



P_T-T_a Characteristics



Safe Operating Area (SOA)

