

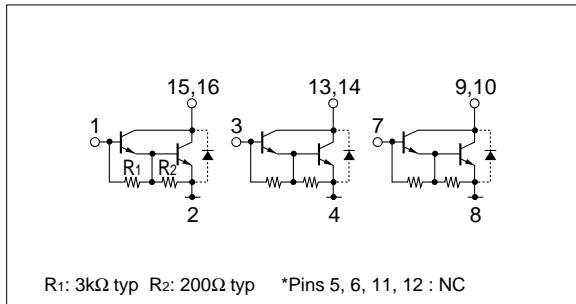
### Absolute maximum ratings (Ta=25°C)

Symbol	Ratings	Unit
V <sub>CB0</sub>	60	V
V <sub>CEO</sub>	60	V
V <sub>EB0</sub>	6	V
I <sub>c</sub>	4	A
I <sub>CP</sub>	6 (PW≤1ms, Du≤50%)	A
I <sub>B</sub>	0.5	A
P <sub>T</sub>	2.6 (Ta=25°C)	W
T <sub>j</sub>	150	°C
T <sub>stg</sub>	-40 to +150	°C

### Electrical characteristics (Ta=25°C)

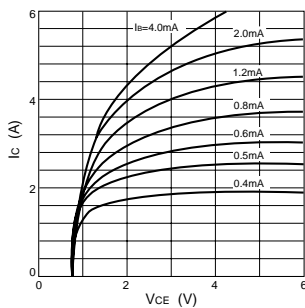
Symbol	Specification			Unit	Conditions
	min	typ	max		
I <sub>CB0</sub>			10	μA	V <sub>CB</sub> =60V
I <sub>EB0</sub>			10	mA	V <sub>EB</sub> =6V
V <sub>CEO</sub>	60			V	I <sub>c</sub> =10mA
h <sub>FE</sub>	2000		12000		V <sub>CE</sub> =4V, I <sub>c</sub> =3A
V <sub>CE(sat)</sub>			1.5	V	I <sub>c</sub> =3A, I <sub>B</sub> =6mA
V <sub>BE(sat)</sub>			2.0	V	
V <sub>FEC</sub>			1.8	V	I <sub>FEC</sub> =1A
t <sub>on</sub>		1.0		μs	V <sub>CC</sub> ≐30V, I <sub>c</sub> =3A,
t <sub>stg</sub>		4.0		μs	I <sub>B1</sub> =-I <sub>B2</sub> =10mA
t <sub>f</sub>		1.5		μs	
f <sub>T</sub>		75		MHz	V <sub>CE</sub> =12V, I <sub>E</sub> =-0.1A
C <sub>ob</sub>		50		pF	V <sub>CB</sub> =10V, f=1MHz

### Equivalent circuit diagram

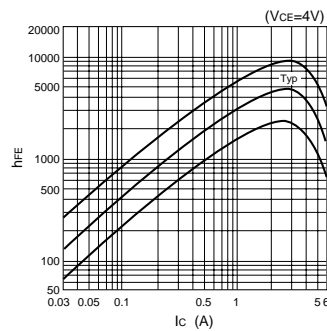


### Characteristic curves

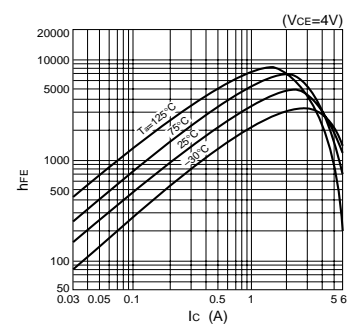
I<sub>c</sub>-V<sub>CE</sub> Characteristics (Typical)



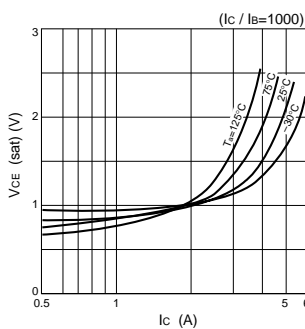
h<sub>FE</sub>-I<sub>c</sub> Characteristics (Typical)



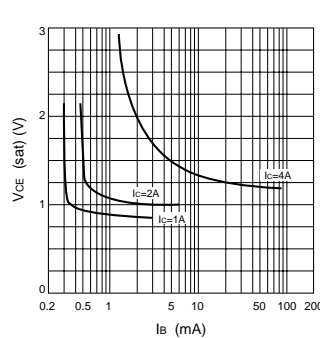
h<sub>FE</sub>-I<sub>c</sub> Temperature Characteristics (Typical)



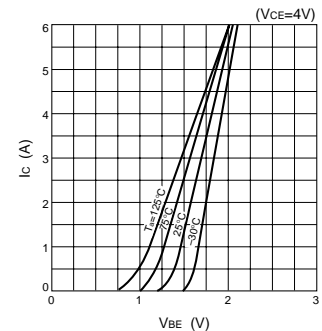
V<sub>CE(sat)</sub>-I<sub>c</sub> Temperature Characteristics (Typical)



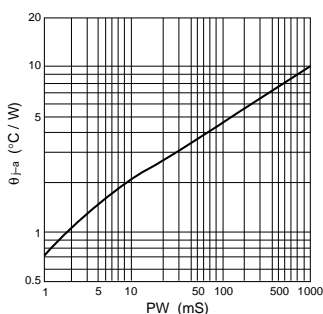
V<sub>CE(sat)</sub>-I<sub>B</sub> Characteristics (Typical)



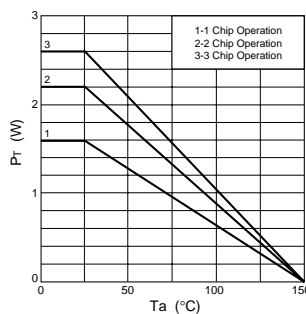
I<sub>c</sub>-V<sub>BE</sub> Temperature Characteristics (Typical)



θ<sub>j-a</sub>-PW Characteristics



P<sub>T</sub>-T<sub>a</sub> Characteristics



Safe Operating Area (SOA)

