

5 464 Silicon NPN transistor in a TO-252 Plastic Package.

Table 1 / Absolute Maximum Ratings(Ta=25 °C ;)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CBO}	100	V
Collector to Emitter Voltage	V _{CEO}	100	V
Emitter to Base Voltage	V _{EBO}	5.0	V
Collector Current - Continuous	I _C	2.0	A
Collector Current – Continuous(Pulse)	I _{C(Pulse)}	4.0	A
Base Current - Continuous	I _B	50	mA
Collector Power Dissipation	P _C	1.75	W
Collector Power Dissipation	P _C (T _C =25 °C)	20	W
Junction Temperature	T _j	150	
Storage Temperature Range	T _{stg}	-55 ~ 150	

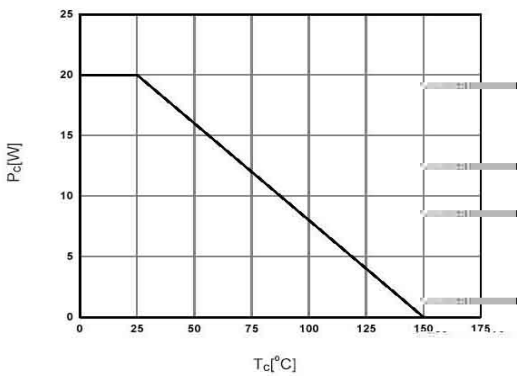
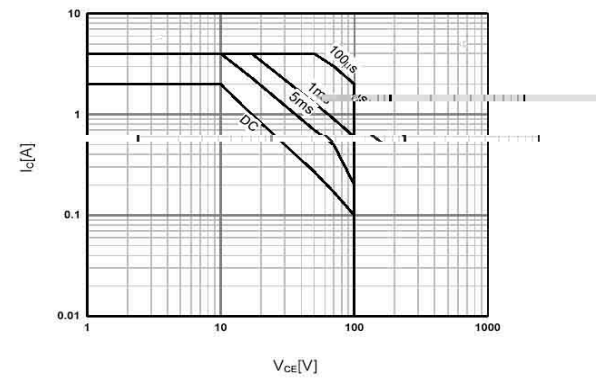
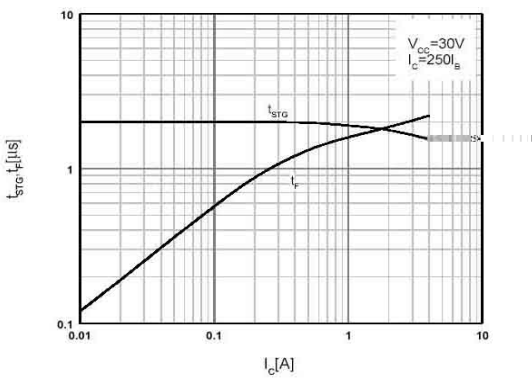
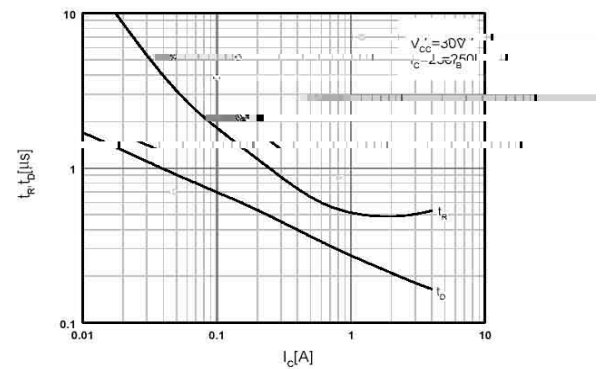
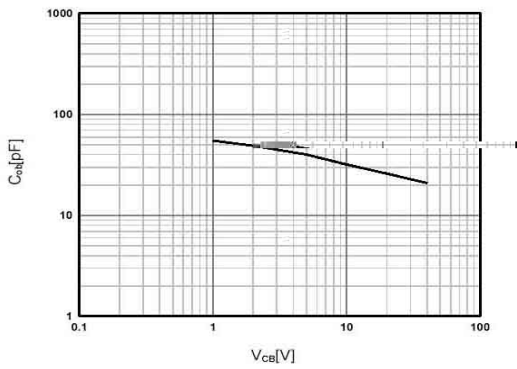
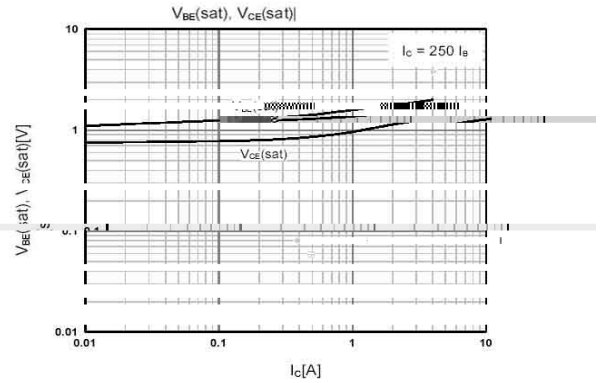
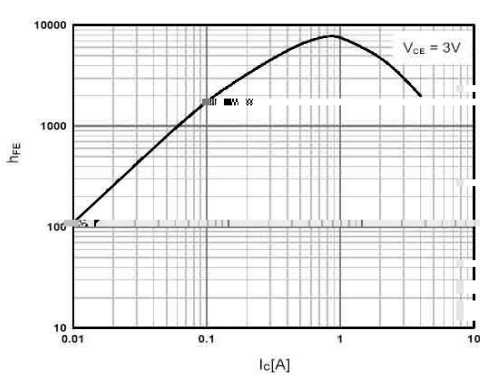
Pulse Test:PW ≤300 μs,Duty Cycle ≤2%

Table 2 / Electrical Characteristics(Ta=25 °C ;)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage*	V _{CEO} *	I _C =10mA I _B =0	100			V
Collector Cut-Off Current	I _{CEO}	V _{CE} =50V I _B =0			0.02	mA
Collector Cut-Off Current	I _{CBO}	V _{CB} =100V I _E =0			0.02	mA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =5.0V I _C =0			2.0	mA
DC Current Gain	h _{FE(1)} *	V _{CE} =3.0V I _C =2.0A	1000		12K	
	h _{FE(2)} *	V _{CE} =3.0V I _C =0.5A	500			
	h _{FE(3)} *	V _{CE} =3.0V I _C =4.0A	200			
Collector-Emitter Saturation Voltage	V _{CE(sat)1} *	I _C =2.0A I _B =8.0mA			2.0	V
	V _{CE(sat)2} *	I _C =4.0A I _B =40mA			3.0	V
Base-Emitter Saturation Voltage*	V _{BE(sat)} *	I _C =4.0A I _B =40mA			4.0	V
Base-Emitter-On Voltage*	V _{BE(on)} *	V _{CE} =3.0V I _C =2.0A			2.8	V
Current Gain Bandwidth Product	f _T	V _{CE} =10V I _C =0.75A	25			MHz
Output Capacitance	C _{ob}	V _{CB} =10V I _E =0 f=0.1MHz			100	pF

*Pulse Test:Pulse Width ≤380us,Duty Cycle ≤2%. I_C (mA) vs I_B (mA)

Electrical Characteristic Curve



∅ □ =) ∅ / Package Dimensions



单位: mm

Symbol	Min	Max	Symbol	Min
A	2.30	2.40	F	5.95
B	0.50	0.55	G	4.75
C	0.45	0.55	H	9.45
D	5.16	5.50	I	0.00
E	0.66	0.80	J	0.00
K	0.66	0.80	L	0.00
M	0.66	0.80	N	0.00
O	0.66	0.80	P	0.00
Q	0.66	0.80	R	0.00
S	0.66	0.80	T	0.00
U	0.66	0.80	V	0.00
W	0.66	0.80	X	0.00
Y	0.66	0.80	Z	0.00
e1	0.66	0.80	e2	0.66

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