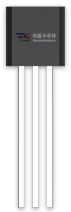
2N6520 TRANSISTOR (PNP)



TO-92

1.EMITTER
2.COLLECTOR
3.BASE

FEATURES

- Complement to 2N6517

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2N6520	TO-92	Bulk	1000pcs/Bag
2N6520-TA	TO-92	Tape	2000pcs/Box

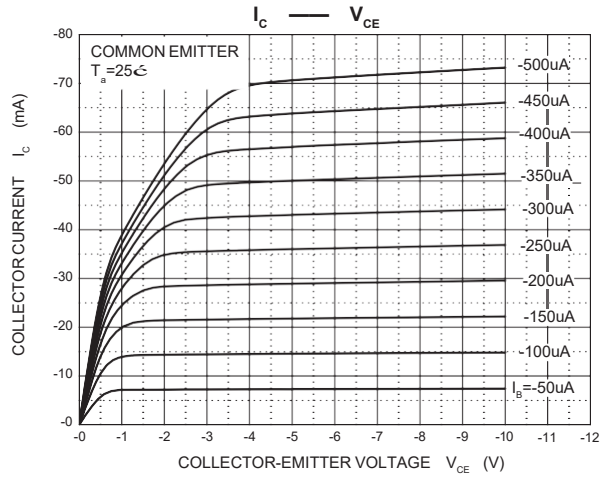
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

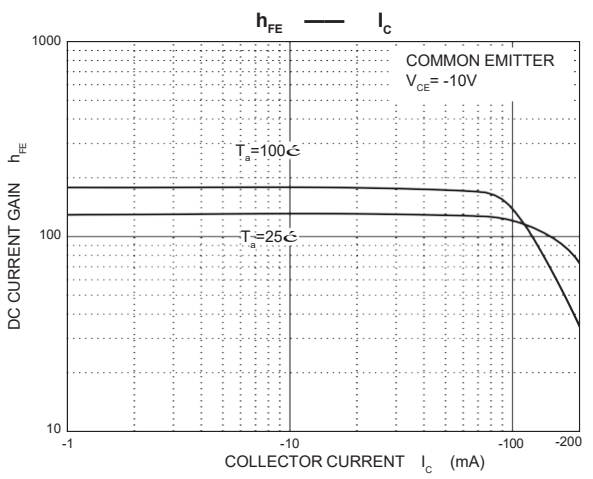
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-350	V
V_{CEO}	Collector-Emitter Voltage	-350	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.5	A
P_D	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	200	℃ /W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

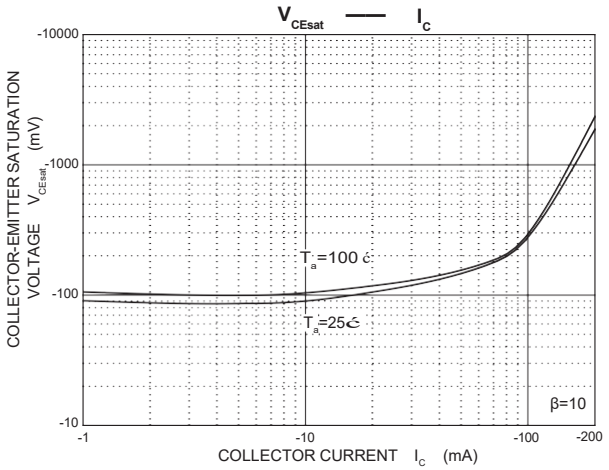
T_a=25℃ unless otherwise specified

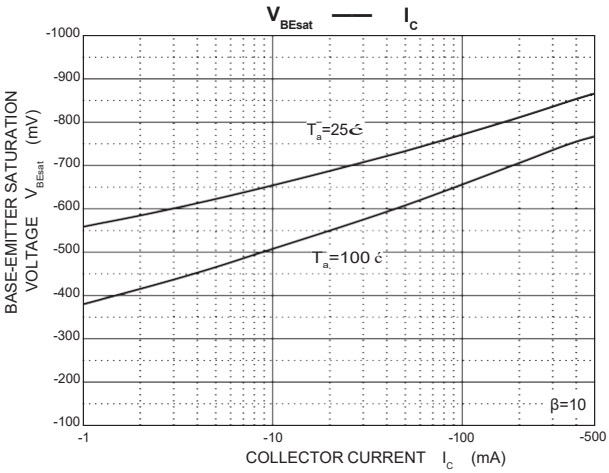
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=- 0.1mA,I_E=0	-350			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=-1mA,I_B=0	-350			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-0.01mA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-250V,I_E=0			-0.05	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-4V,I_C=0			-0.05	μA
DC current gain	h_{FE}	V_{CE}=-10V, I_C=-1mA	20			
		V_{CE}=-10V, I_C=-10mA	30			
		V_{CE}=-10V, I_C=-30mA	30		200	
		V_{CE}=-10V, I_C=-50mA	20		200	
		V_{CE}=-10V, I_C=-100mA	15			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-10mA,I_B=-1mA			-0.3	V
		I_C=-20mA,I_B=-2mA			-0.35	V
		I_C=-30mA,I_B=-3mA			-0.5	V
		I_C=-50mA,I_B=-5mA			-1	V
Base-emitter saturation voltage	$V_{BE\ (sat)}$	I_C=-10mA,I_B=-1mA			-0.75	V
		I_C=-20mA,I_B=-2mA			-0.85	V
		I_C=-30mA,I_B=-3mA			-0.9	V
Base-emitter voltage	V_{BE}	V_{CE}=-10V, I_C=-100mA			-2	V
Transition frequency	f_T*	V_{CE}=-20V,I_C=-10mA,f=20MHz	40		200	MHz

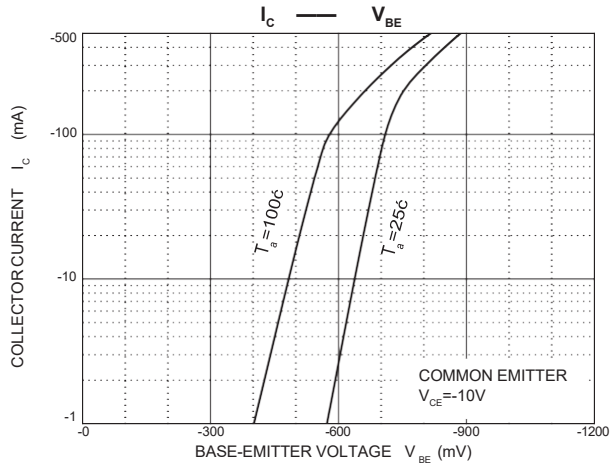
*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

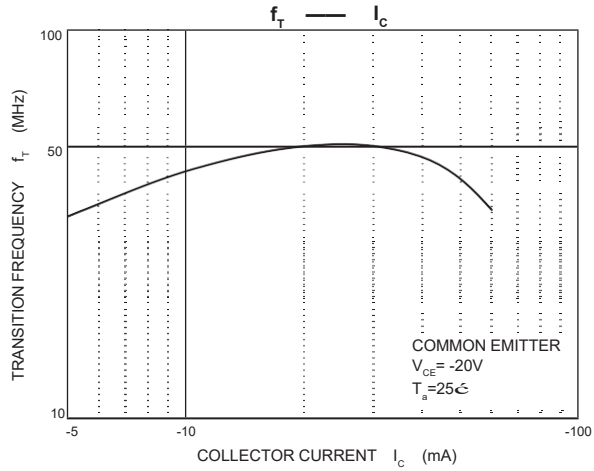

I_C — V_{CE}
COMMON EMITTER
T_a=25℃
-500uA
-450uA
-400uA
-350uA
-300uA
-250uA
-200uA
-150uA
-100uA
I_B=-50uA
COLLECTOR CURRENT I_C (mA)
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)

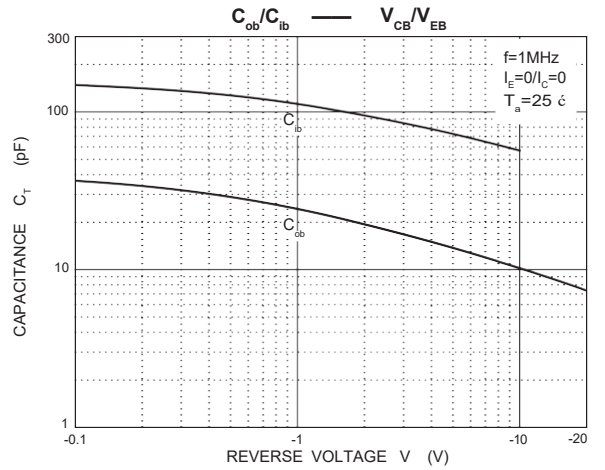

h_{FE} — I_C
COMMON EMITTER
V_{CE}= -10V
T_a=100℃
T_a=25℃
DC CURRENT GAIN h_{FE}
COLLECTOR CURRENT I_C (mA)

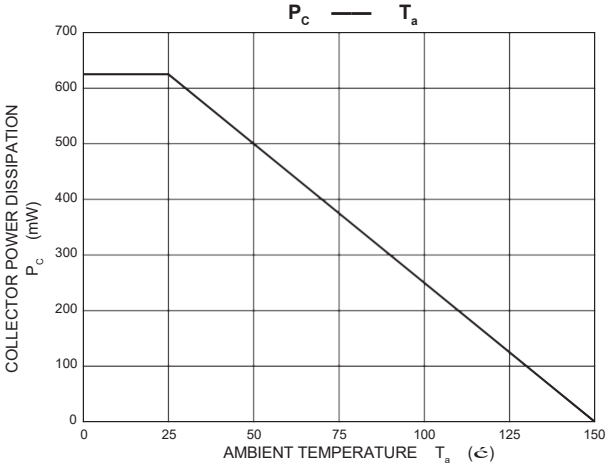

V_{CEsat} — I_C
T_a=100 ℃
T_a=25℃
β=10
COLLECTOR-EMITTER SATURATION VOLTAGE V_{CEsat} (mV)
COLLECTOR CURRENT I_C (mA)


V_{BEsat} — I_C
T_a=25℃
T_a=100 ℃
β=10
BASE-EMITTER SATURATION VOLTAGE V_{BEsat} (mV)
COLLECTOR CURRENT I_C (mA)


I_C — V_{BE}
T_a=100℃
T_a=25℃
COMMON EMITTER
V_{CE}=-10V
COLLECTOR CURRENT I_C (mA)
BASE-EMITTER VOLTAGE V_{BE} (mV)


f_T — I_C
COMMON EMITTER
V_{CE}= -20V
T_a=25℃
TRANSITION FREQUENCY f_T (MHz)
COLLECTOR CURRENT I_C (mA)


C_{ob}/C_{ib} — V_{CB}/V_{EB}
f=1MHz
I_E=0/I_C=0
T_a=25 ℃
C_{ib}
C_{ob}
CAPACITANCE C_T (pF)
REVERSE VOLTAGE V (V)


P_C — T_a
COLLECTOR POWER DISSIPATION P_C (mW)
AMBIENT TEMPERATURE T_a (℃)