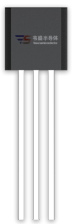
2N6718 TRANSISTOR (NPN)



TO-92

1.EMITTER
2.COLLECTOR
3.BASE

FEATURES

- General Purpose Switching Application

ORDERING INFORMATION

Part Number	Package	Packing Method	Pack Quantity
2N6718	TO-92	Bulk	1000pcs/Bag
2N6718-TA	TO-92	Tape	2000pcs/Box

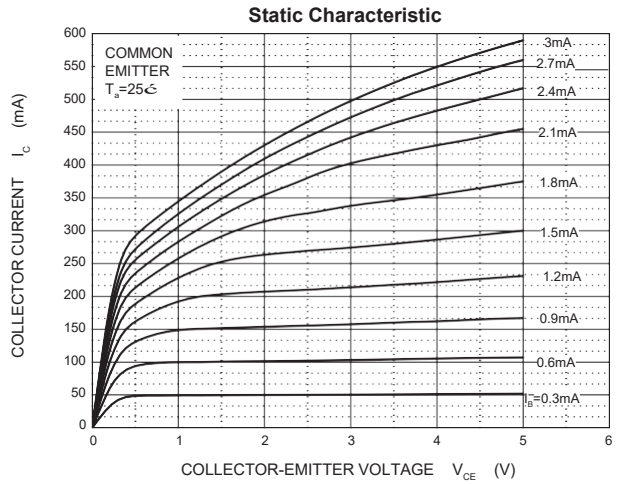
MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

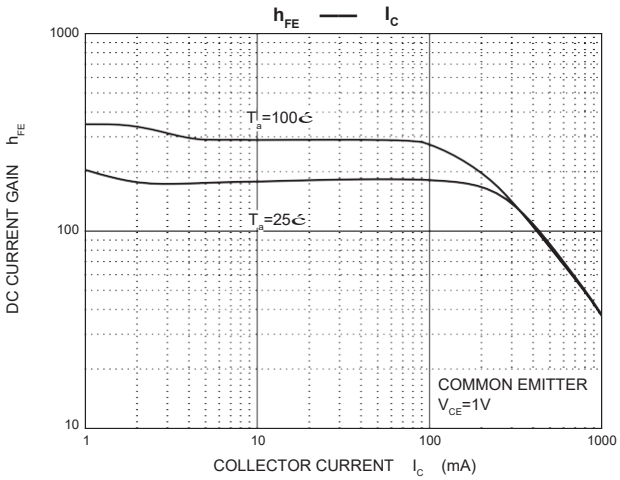
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	1	A
P_C	Collector Power Dissipation	625	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	200	℃ /W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55~+150	℃

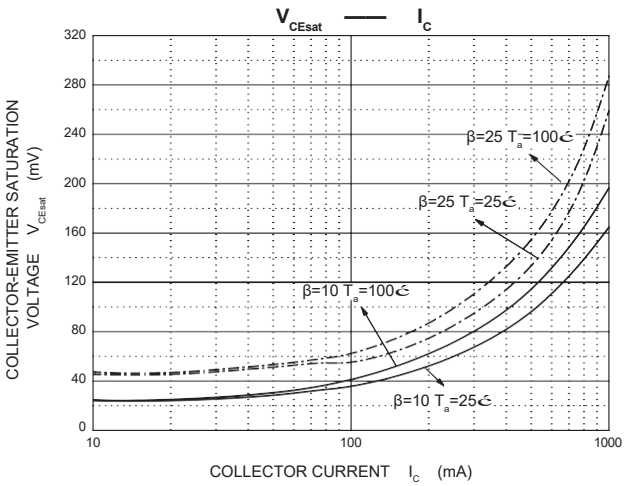
T_a=25℃ unless otherwise specified

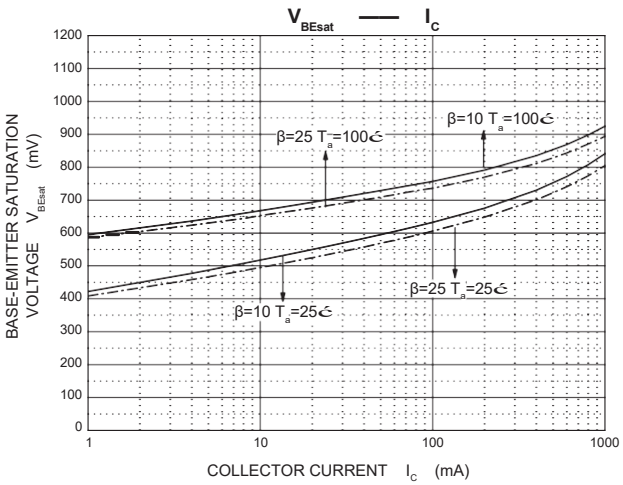
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= 0.1mA,I_E=0	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	100			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=1mA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=100V,I_E=0			1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=5V,I_C=0			1	μA
DC current gain	$h_{FE(1)}$*	V_{CE}=1V, I_C=50mA	80			
	$h_{FE(2)}$*	V_{CE}=1V, I_C=250mA	50		250	
	$h_{FE(3)}$*	V_{CE}=1V, I_C=500mA	20			
Collector-emitter saturation voltage	$V_{CE(sat)(1)}$*	I_C=250mA,I_B=10mA			0.5	V
	$V_{CE(sat)(2)}$*	I_C=250mA,I_B=25mA			0.35	V
Base-emitter voltage	V_{BE}*	V_{CE}=1V, I_C=250mA			1.2	V
Collector output capacitance	C_{ob}	V_{CB}=10V, f=1MHz			30	pF
Transition frequency	f_T	V_{CE}=10V,I_C=50mA	50			MHz

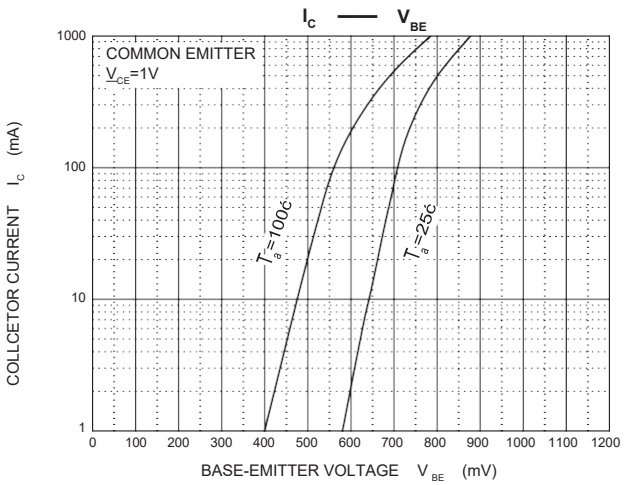
*Pulse test: pulse width ≤300μs, duty cycle≤ 2.0%.

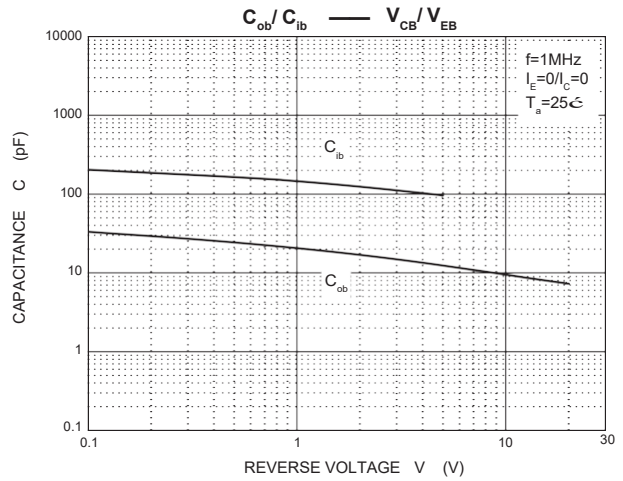

Static Characteristic
COMMON EMITTER
Ta=25℃
3mA
2.7mA
2.4mA
2.1mA
1.8mA
1.5mA
1.2mA
0.9mA
0.6mA
IB=0.3mA
COLLECTOR CURRENT IC (mA)
COLLECTOR-EMITTER VOLTAGE VCE (V)

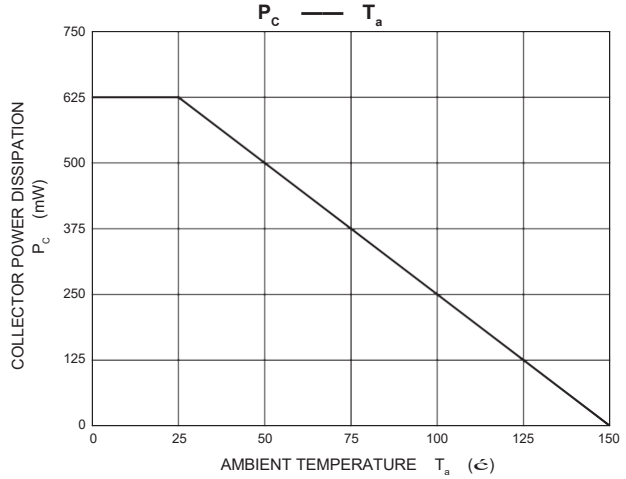

hFE — IC
Ta=100℃
Ta=25℃
COMMON EMITTER
VCE=1V
DC CURRENT GAIN hFE
COLLECTOR CURRENT IC (mA)


VCEsat — IC
β=25 Ta=100℃
β=25 Ta=25℃
β=10 Ta=100℃
β=10 Ta=25℃
COLLECTOR-EMITTER SATURATION VOLTAGE VCEsat (mV)
COLLECTOR CURRENT IC (mA)


VBEsat — IC
β=10 Ta=100℃
β=25 Ta=100℃
β=25 Ta=25℃
β=10 Ta=25℃
BASE-EMITTER SATURATION VOLTAGE VBEsat (mV)
COLLECTOR CURRENT IC (mA)


IC — VBE
COMMON EMITTER
VCE=1V
Ta=100℃
Ta=25℃
COLLCETOR CURRENT IC (mA)
BASE-EMITTER VOLTAGE VBE (mV)


Cob/ Cib — VCB/ VEB
f=1MHz
IE=0/IC=0
Ta=25℃
Cib
Cob
CAPACITANCE C (pF)
REVERSE VOLTAGE V (V)


PC — Ta
COLLECTOR POWER DISSIPATION PC (mW)
AMBIENT TEMPERATURE Ta (℃)