D882H TRANSISTOR (NPN)

1.BASE
2.COLLECTOR
3.EMITTER

SOT-89

FEATURE

- Low $V_{CE(sat)}$
- Large current capacity

MAKING: D882H

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

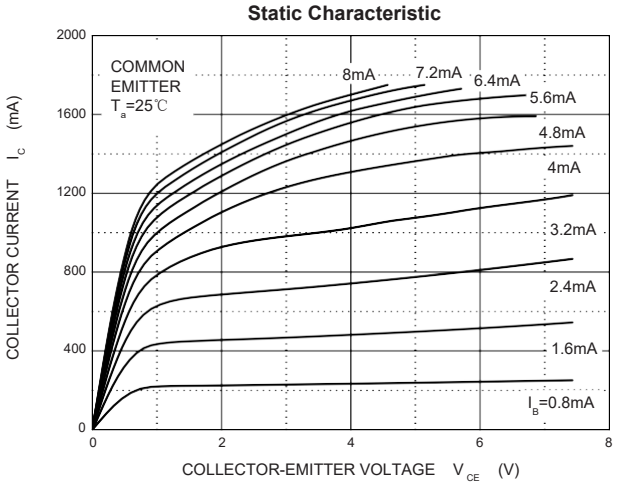
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	70	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	3	A
P_C	Collector Power Dissipation	500	mW
$R_{\Theta JA}$	Thermal Resistance from Junction to Ambient	250	℃/W
$R_{\Theta JC}$	Thermal Resistance from Junction to Case	35	℃/W
T_J,T_{stg}	Operation Junction and Storage Temperature Range	-55～+150	℃

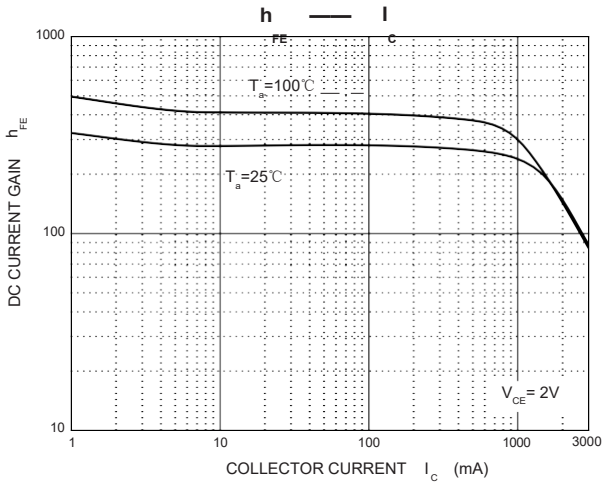
ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

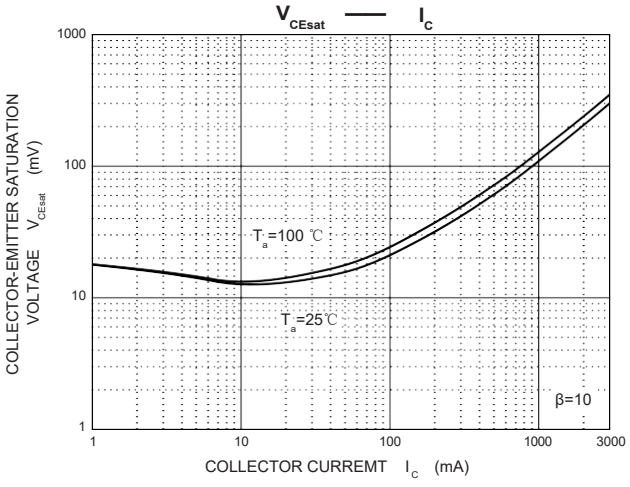
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA, I_E=0	70			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=10mA, I_B=0	70			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=40V, I_E=0			1	μA
Collector cut-off current	I_{CEO}	V_{CE}=30V, I_B=0			10	μA
Emitter cut-off current	I_{EBO}	V_{EB}=6V, I_C=0			1	μA
DC current gain	h_{FE}	V_{CE}=2V, I_C=1A	60		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=2A, I_B=0.2A			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=2A, I_B=0.2A			1.5	V
Transition frequency	f_T	V_{CE}=5V,I_C=0.1A,f=10MHz	50			MHz

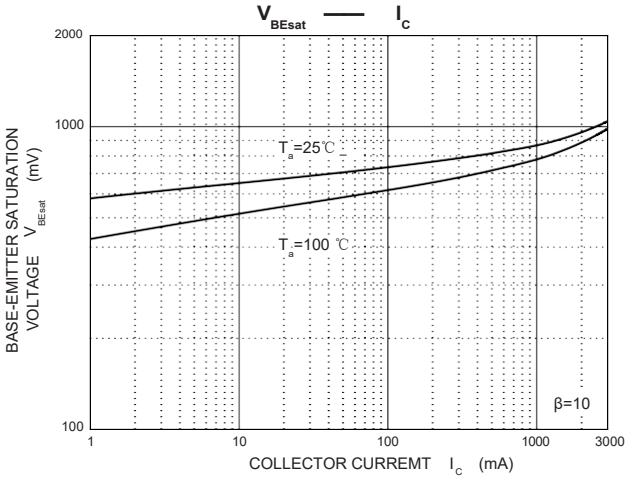
CLASSIFICATION of h_{FE}

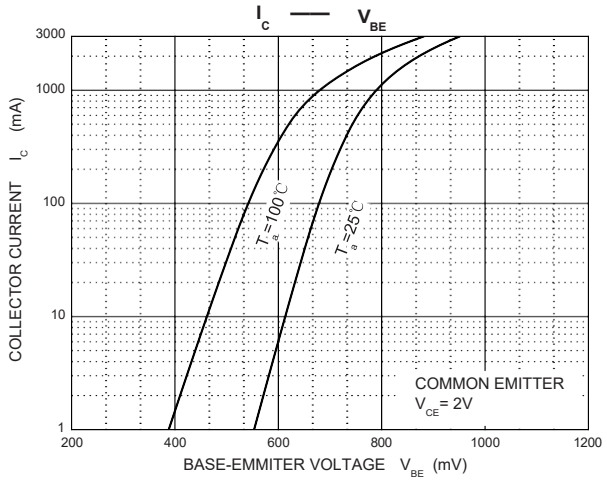
Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

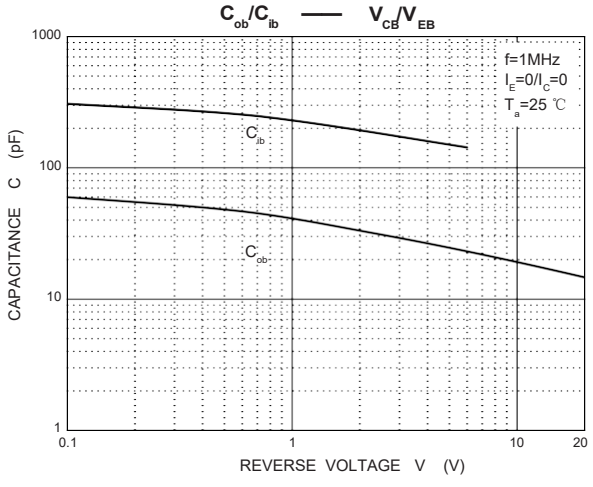

Static Characteristic
COMMON
EMITTER
Ta=25℃
8mA
7.2mA
6.4mA
5.6mA
4.8mA
4mA
3.2mA
2.4mA
1.6mA
IB=0.8mA
COLLECTOR CURRENT IC (mA)
COLLECTOR-EMITTER VOLTAGE VCE (V)

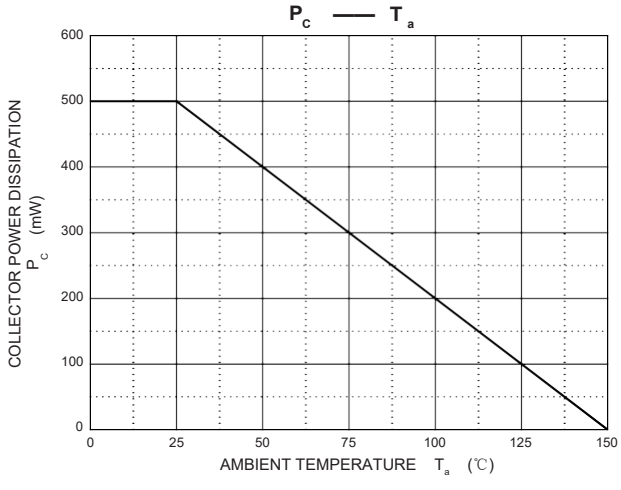

hFE — IC
Ta=100℃
Ta=25℃
VCE= 2V
DC CURRENT GAIN hFE
COLLECTOR CURRENT IC (mA)


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


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


IC — VBE
Ta=100℃
Ta=25℃
COMMON EMITTER
VCE= 2V
COLLECTOR CURRENT IC (mA)
BASE-EMMITER 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 (℃)