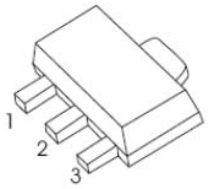
D882 TRANSISTOR (NPN)

SOT-89

1. BASE
2. COLLECTOR
3. EMITTER



FEATURES

Power dissipation

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	3	A
P_C	Collector Power Dissipation	0.5	W
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	250	℃/W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

ELECTRICAL CHARACTERISTICS(T_a=25℃ unless otherwise specified)

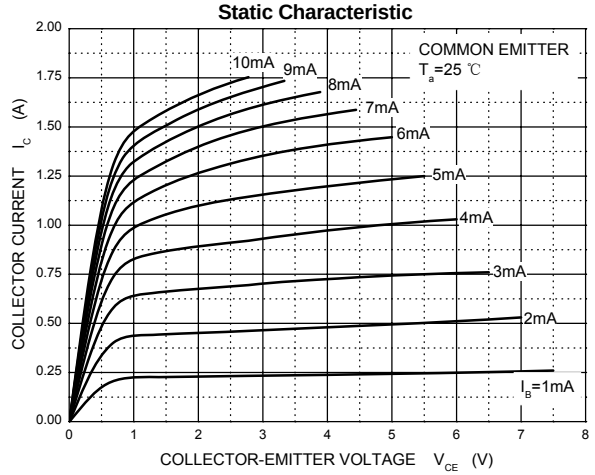
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C = 100μA, I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 10mA, I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= 100μA, I_C=0	6			V
Collector cut-off current	I_{CBO}	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	$h_{FE(1)}$	V_{CE}=2V, I_C= 1A	60		400	
	$h_{FE(2)}$	V_{CE}=2V, I_C= 100mA	32			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C= 2A, I_B= 0.2 A			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C= 2A, I_B= 0.2 A			1.5	V
Transition frequency	f_T	V_{CE}= 5V , Ic=0.1A f =10MHz	50			MHz

CLASSIFICATION OF $h_{FE(1)}$

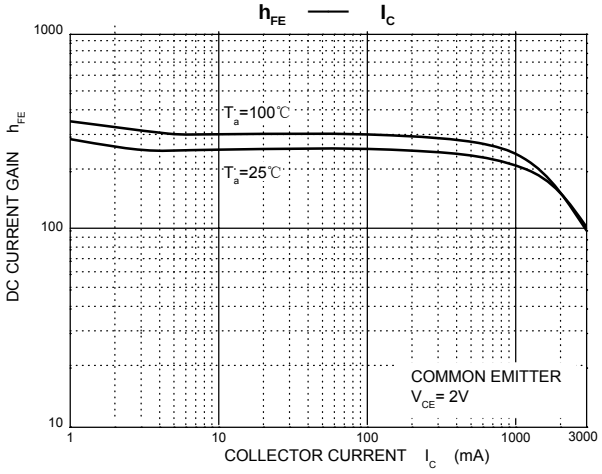
Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

Typical Characteristics

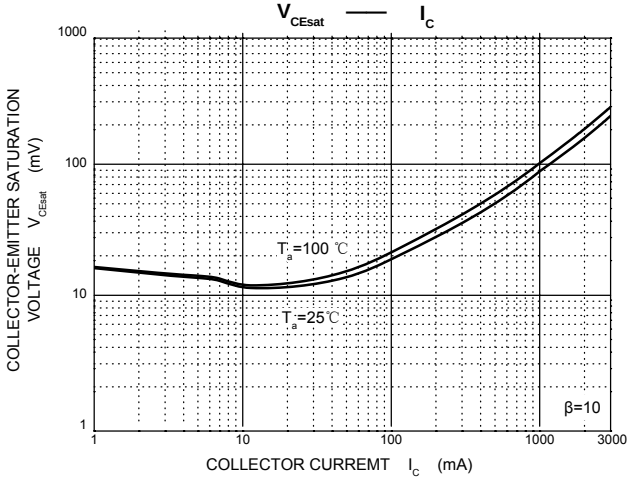
Static Characteristic



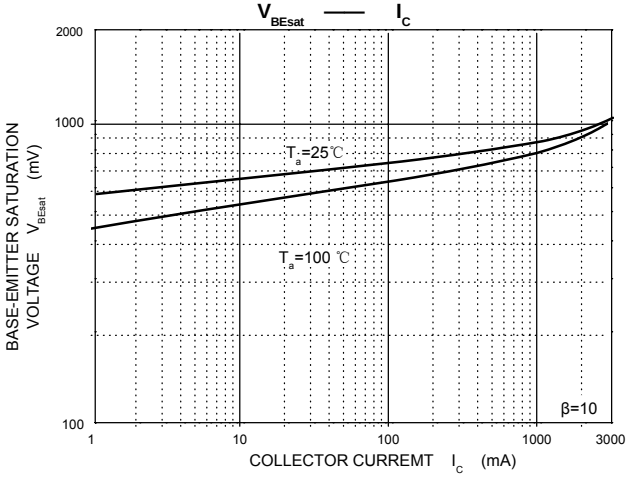
h_{FE} —— I_C



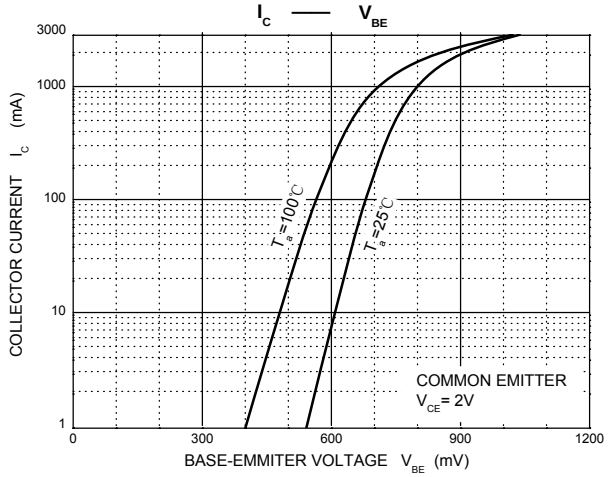
V_{CEsat} —— I_C



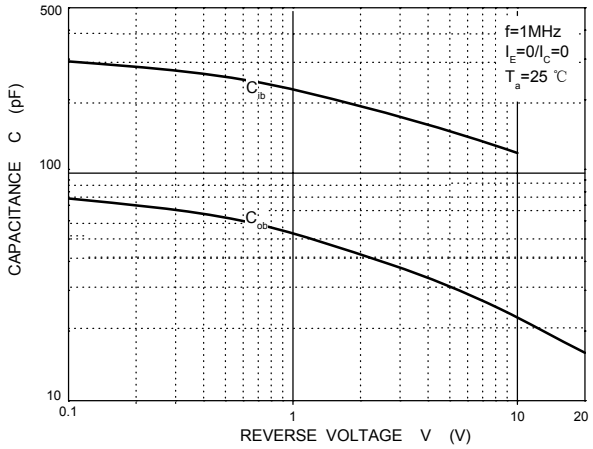
V_{BEsat} —— I_C



I_C —— V_{BE}



C_{ob}/C_{ib} —— V_{CB}/V_{EB}



P_C —— T_a

