

TRANSISTOR (NPN)

FEATURES

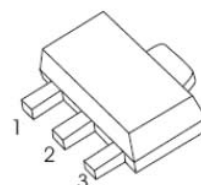
Power dissipation

MAXIMUM RATINGS (T_a=25°C 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
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C

SOT-89

1. BASE
2. COLLECTOR
3. EMITTER



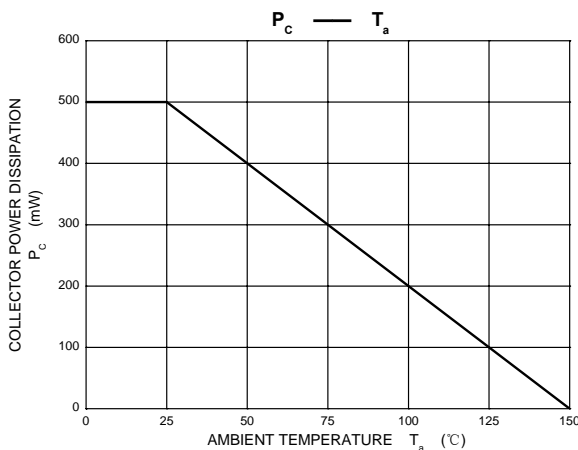
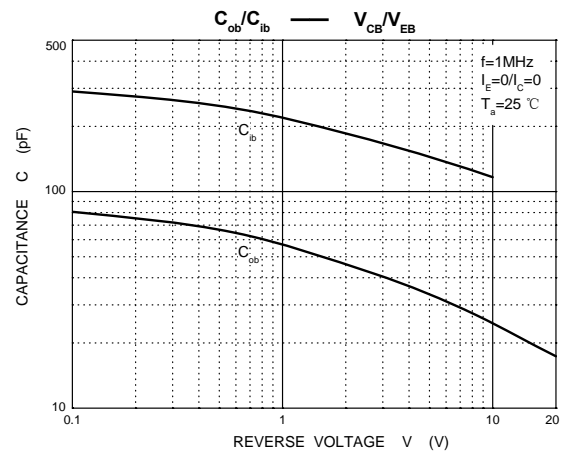
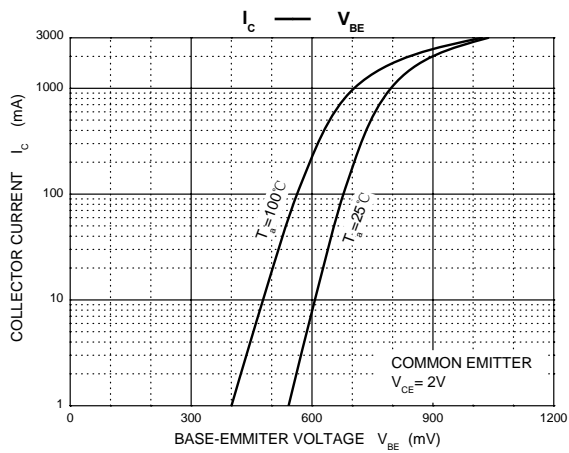
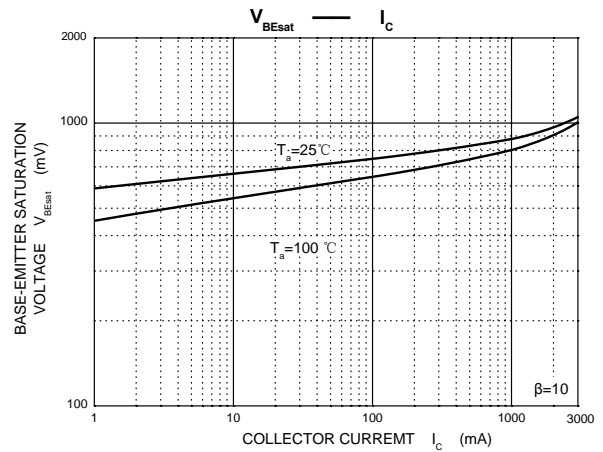
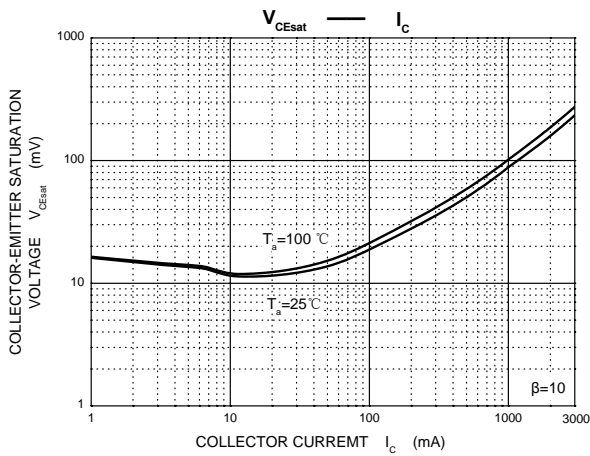
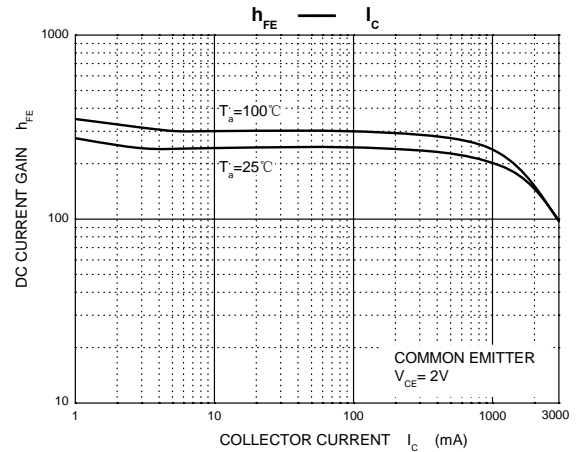
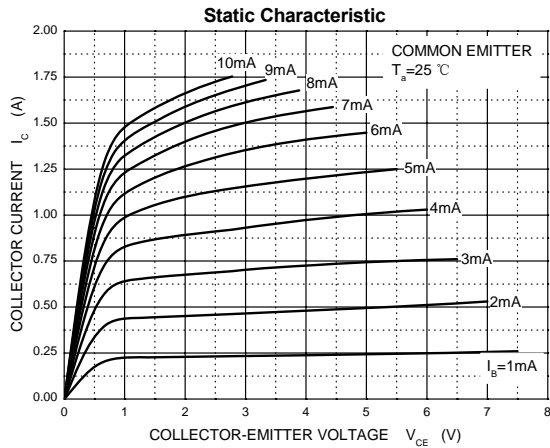
ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

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 = 10 mA, I _B =0	30			V
Emitter-base breakdown voltage	V(BR) _{EBO}	I _E = 100 mA, I _C =0	6			V
Collector cut-off current	I _{CBO}	V _{CB} =40 V, I _E =0			1	μA
Collector cut-off current	I _{CEO}	V _{CE} =30 V, 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 = 0.2A			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} =5 V, I _C =0.1mA 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



Package Outline

SOT-89

Dimensions in mm

