

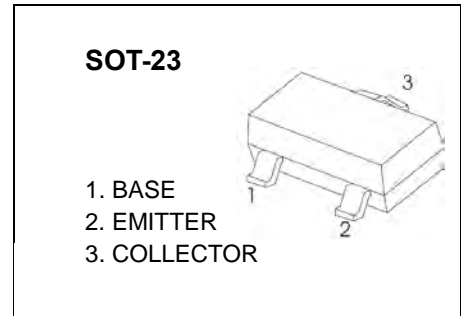


SOT-23 Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

FEATURE

- Collector-Base Voltage
- **Pb-Free package is available**
RoHS product for packing code suffix "G"
Halogen free product for packing code suffix "H"



MAXIMUM RATINGS(T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-60	V
V _{CEO}	Collector-Emitter Voltage	-50	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-150	mA
P _C	Collector Power Dissipation	200	mW
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -5uA, I _E =0	-60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = -1mA, I _B =0	-50			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -50uA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} = -60 V, I _E =0			-0.1	uA
Emitter cut-off current	I _{EBO}	V _{EB} = -5 V, I _C =0			-0.1	uA
DC current gain	h _{FE}	V _{CE} = -6 V, I _C = -1mA	120		475	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -100mA, I _B =- 10mA		-0.18	-0.3	V
Base-emitter voltage	V _{BE(on)}	V _{CE} =-6V, I _C =-1.0mA	-0.58	-0.62	-0.68	V
Transition frequency	f _T	V _{CE} =-6V, I _C =-10mA	50			MHz
Collector output capacitance	C _{ob}	V _{CB} =-10V, I _E =0, f=1MHz		4.5	7	pF
Noise figure	NF	V _{CE} =-6V, I _C =-0.3mA, R _g =10kΩ, f=100Hz		6	20	dB

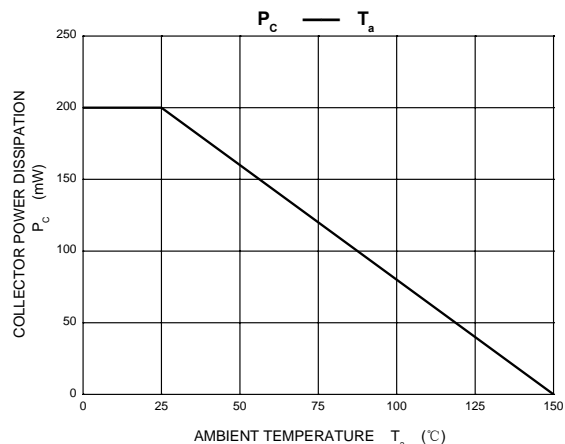
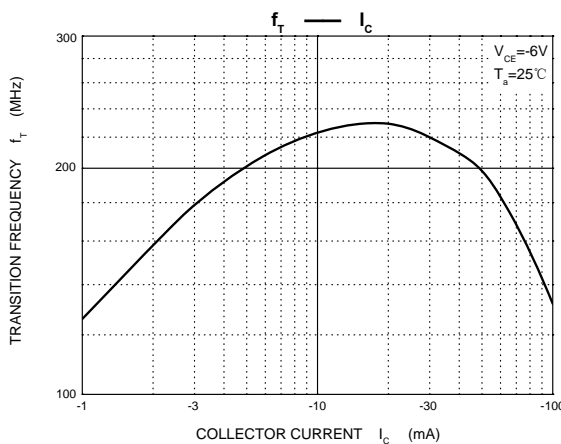
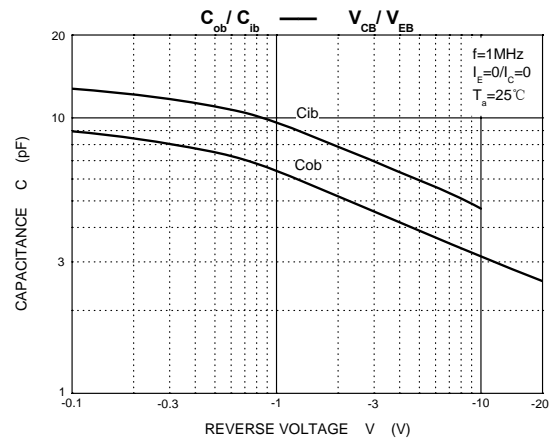
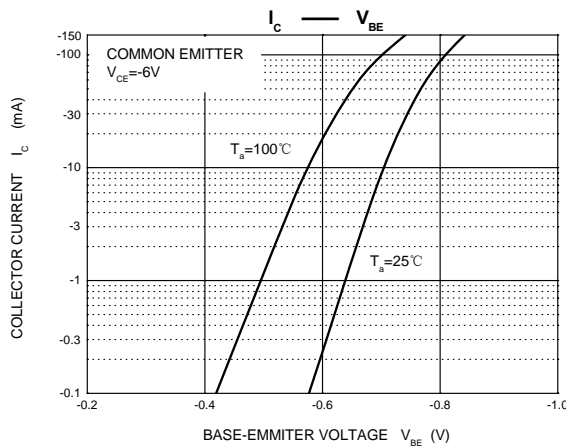
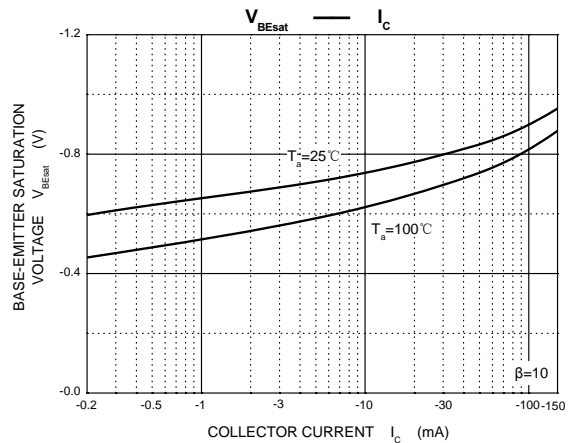
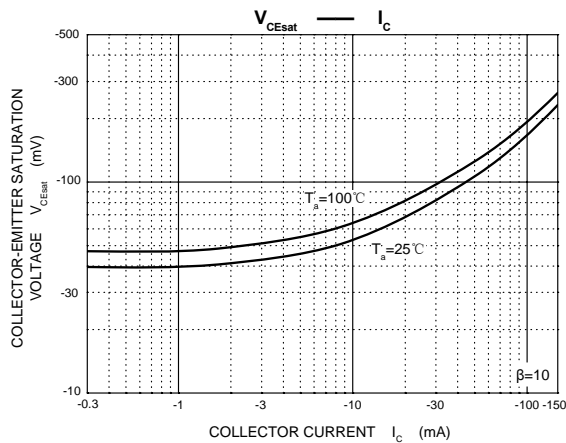
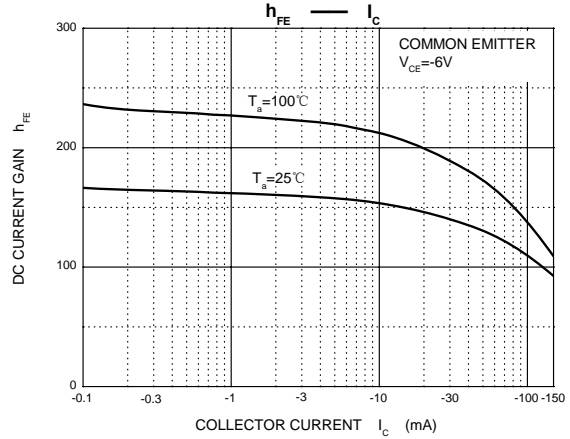
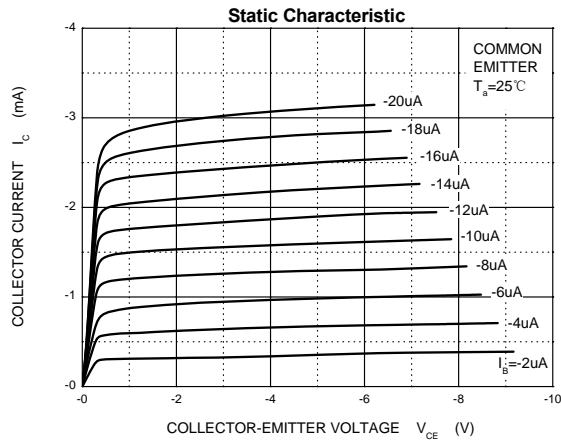
CLASSIFICATION OF h_{FE}

Rank	L	H
Range	120-220	220-475
MARKING	CS	



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Typical Characteristics



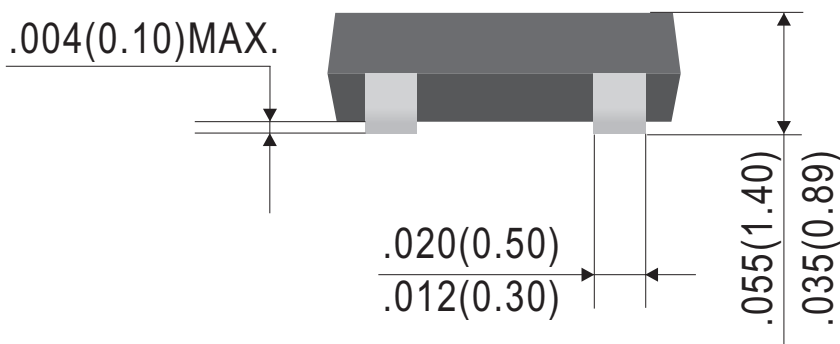
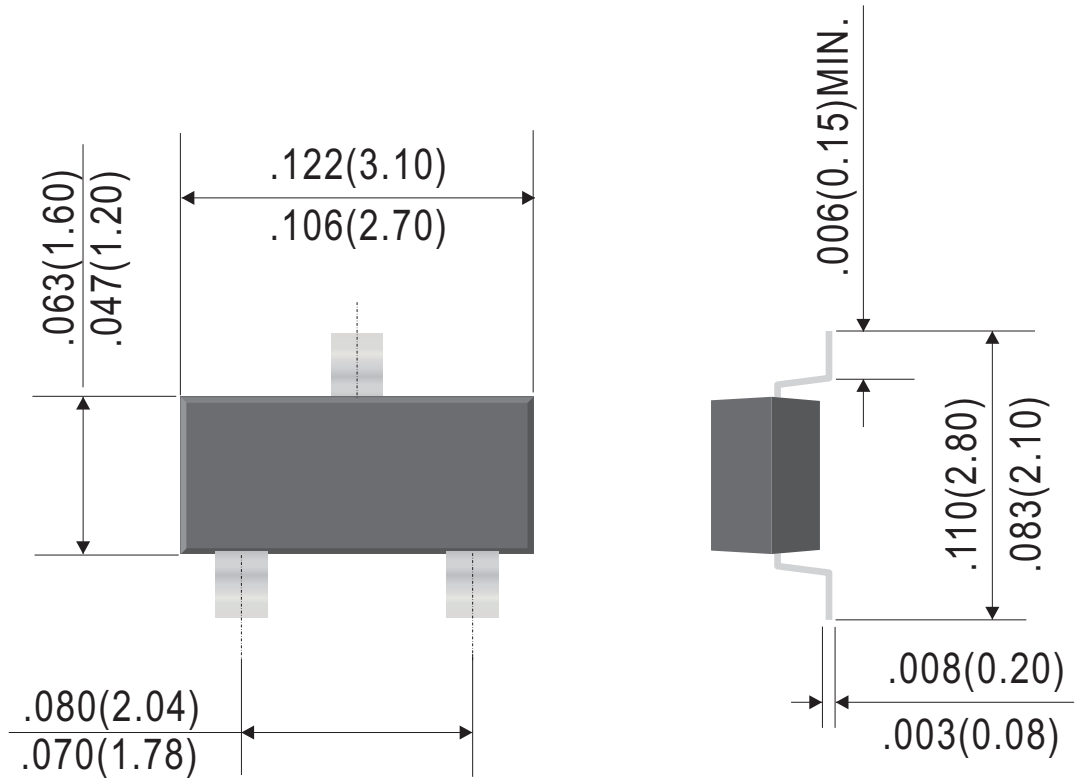


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Outline Drawing

COMMON
EMITTER
V_{CE}=24V

SOT-23



Dimensions in inches and (millimeters)

Rev.D