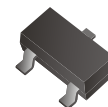


General Purpose Transistors



SMD Diodes Specialist

C1815-G (NPN) RoHS Device

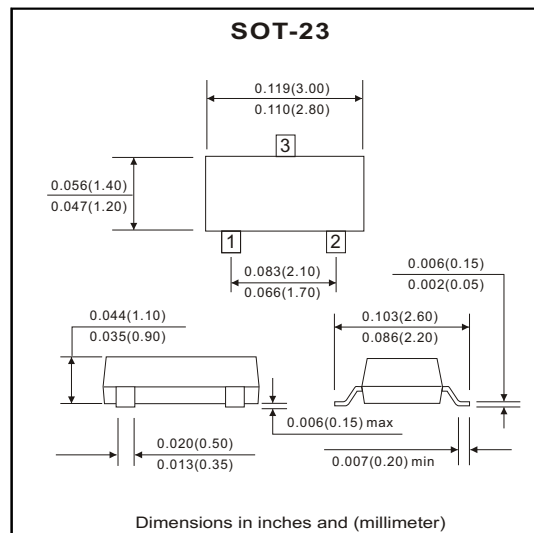
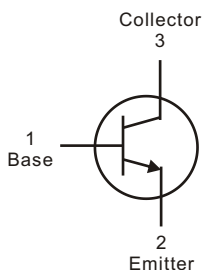


Features

-Power dissipation

$$P_{CM}=0.2W$$

Marking: HF



Maximum Ratings (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base voltage	V _{CBO}	-60	V
Collector-Emitter voltage	V _{CEO}	-50	V
Emitter-Base voltage	V _{EBO}	-5	V
Collector current-continuous	I _C	150	mA
Total device dissipation	P _D	200	mW
Junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min	Typ.	Max	Unit
Collector-Base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	60			V
Collector-Emitter breakdown voltage	V _{(BR)CEO}	I _C =100μA, I _B =0	50			V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0			0.1	A
Collector cut-off current	I _{CEO}	V _{CE} =50V, I _B =0			0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			0.1	μA
DC current gain	h _{FE}	V _{CE} =6V, I _C =2mA	130		400	
Collector-Emitter saturation voltage	V _{CE(SAT)}	I _C =100mA, I _B =10mA			0.25	V
Base-Emitter saturation voltage	V _{BE(SAT)}	I _C =100mA, I _B =10mA			1	V
Transition frequency	f _T	V _{CE} =10V, I _C =1mA f=30MHz	80			MHz

Classification of h_{FE}

Rank	L	H
Range	130 ~ 200	200 ~ 400

REV:A

RATING AND CHARACTERISTIC CURVES (C1815-G)

Fig.1 I_c vs. V_{CE} Characteristics

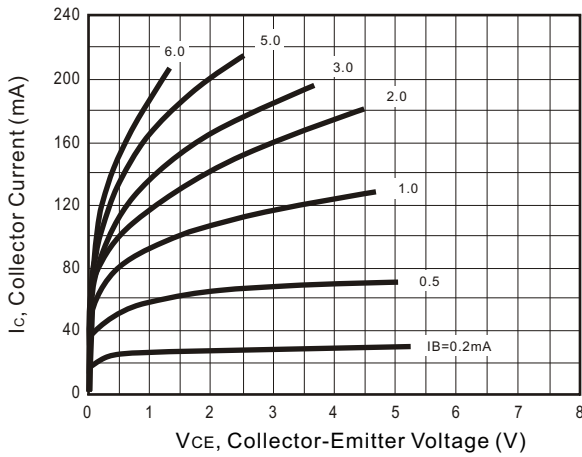


Fig.2 DC Current Gain Characteristics

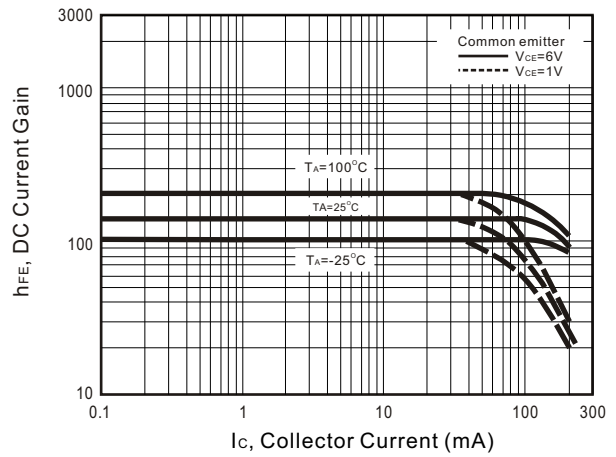


Fig.3 Collector-Emitter Saturation Characteristics

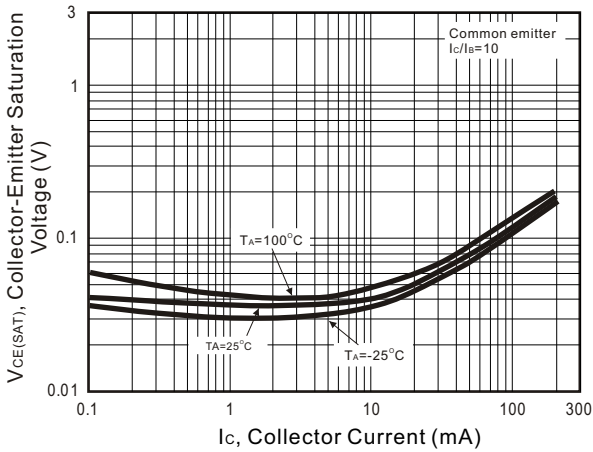


Fig.4 Base-Emitter Saturation Characteristics

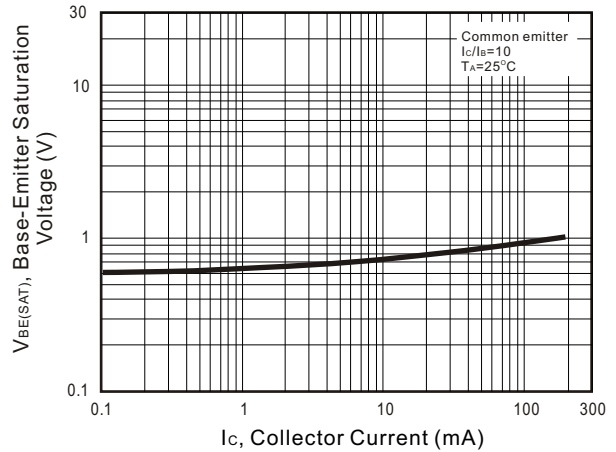


Fig.5 Collector Power Derating Curve

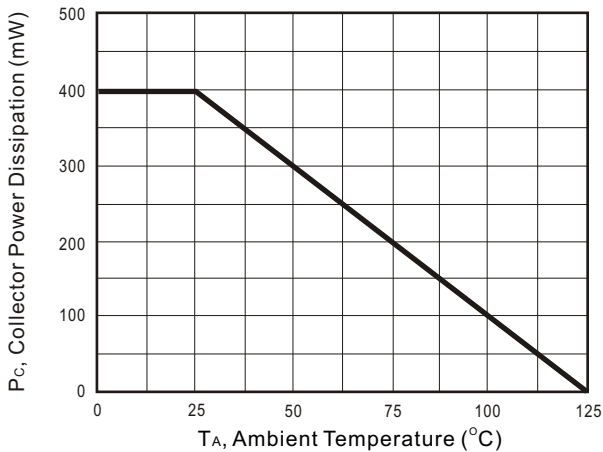


Fig.6 Transition Frequency Characteristics

