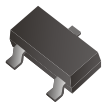
General Purpose Transistors

COMCHIP
SMD Diodes Specialist

C1815-G (NPN)

RoHS Device

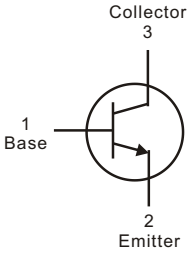


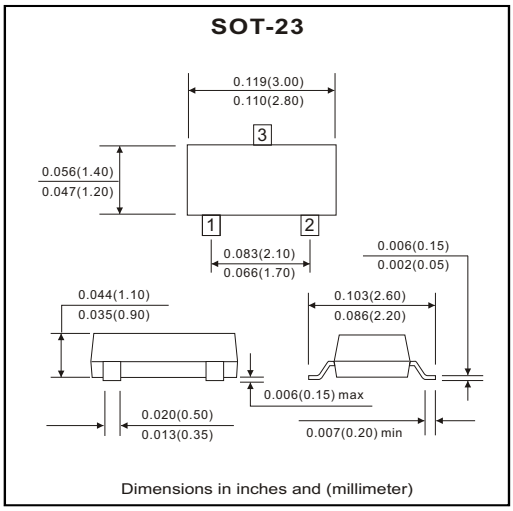
Features

-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

RATING AND CHARACTERISTIC CURVES (C1815-G)

Fig.1 I_C vs. V_{CE} Characteristics

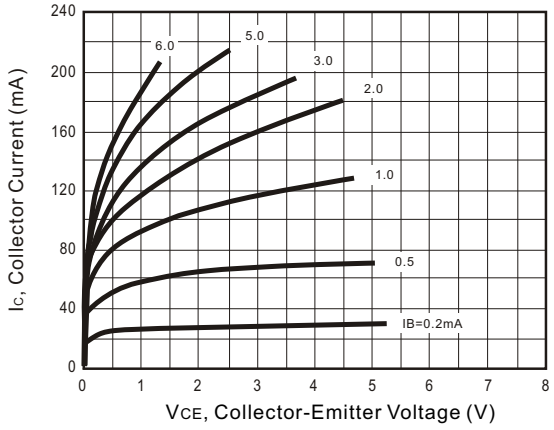


Fig.2 DC Current Gain Characteristics

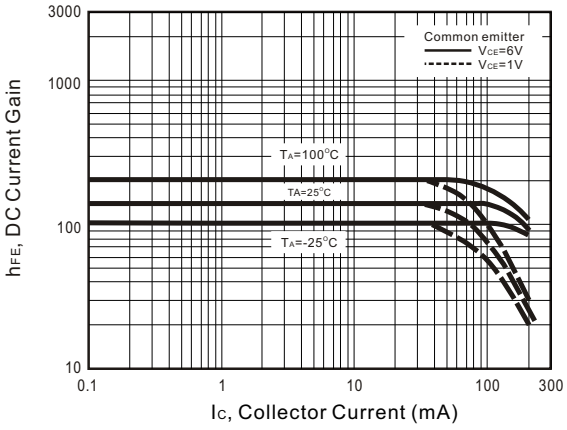


Fig.3 Collector-Emitter Saturation Characteristics

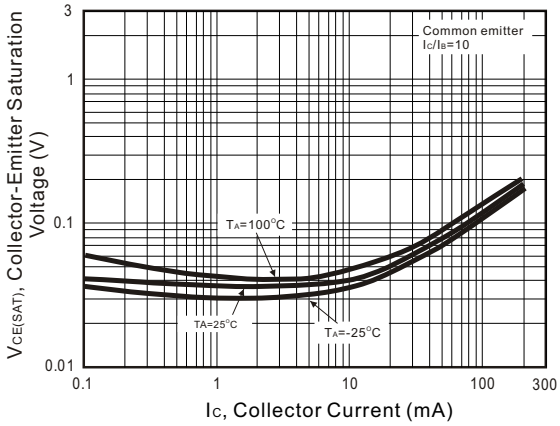


Fig.4 Base-Emitter Saturation Characteristics

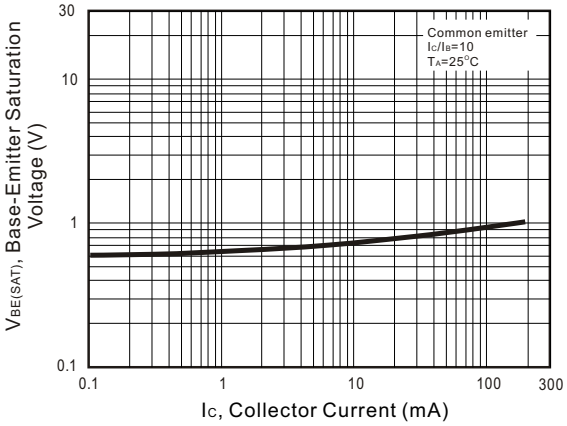


Fig.5 Collector Power Derating Curve

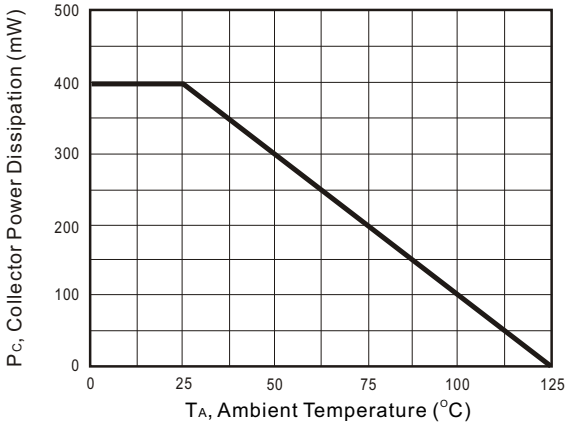


Fig.6 Transition Frequency Characteristics