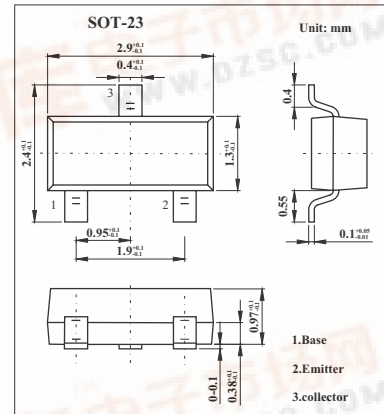


SMD Type Transistors

NPN Transistor
2SC1815



Features

- Power dissipation

Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CB0}	60	V
Collector to Emitter Voltage	V _{CEO}	50	V
Emitter to Base Voltage	V _{EB0}	5	V
Collector Current to Continuous	I _c	150	mA
Collector Power Dissipation	P _c	200	mW
Junction Temperature	T _j	125	°C
Storage Temperature	T _{stg}	-55 to 125	°C

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector to base breakdown voltage	V _{CB0}	I _c = 100 μ A, I _E =0	60			V
Collector to emitter breakdown voltage	V _{CEO}	I _c = 0.1mA, I _B =0	50			V
Collector cut to off current	I _{cBO}	V _{CB} =60V, I _E =0			0.1	μ A
Collector cut to off current	I _{cEO}	V _{CE} =50V, I _B =0			0.1	μ A
Emitter cut to off current	I _{EBO}	V _{EB} = 5V, I _c =0			0.1	μ A
DC current gain	h _{FE}	V _{CE} = 6V, I _c = 2mA	130		400	
Collector to emitter saturation voltage	V _{CE(sat)}	I _c =100 mA, I _B = 10mA			0.25	V
Base to emitter saturation voltage	V _{BE(sat)}	I _c =100 mA, I _B = 10mA			1	V
Transition frequency	f _r	V _{CE} =10V, I _c = 1mA, f=30MHz	80			MHz

hFE Classification

Marking	HF	
	L	H
hFE	130~200	200~400



2SC1815

■ Typical Characteristics

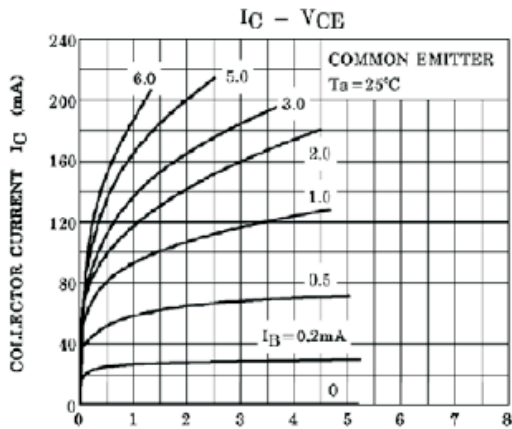


Fig.1 Collector Emitter Voltage

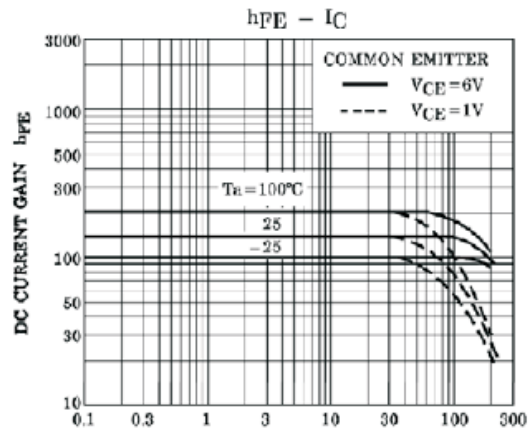


Fig.2 Collector Current

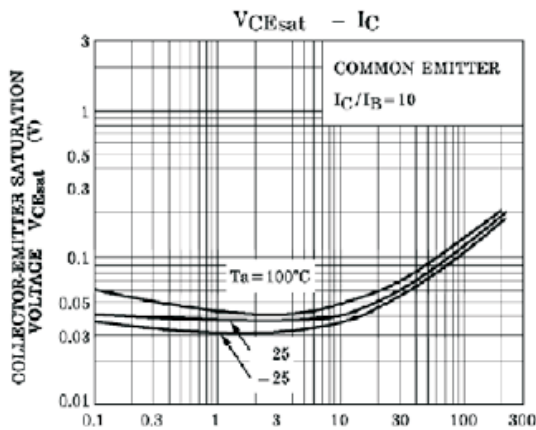


Fig.3 Collector Current

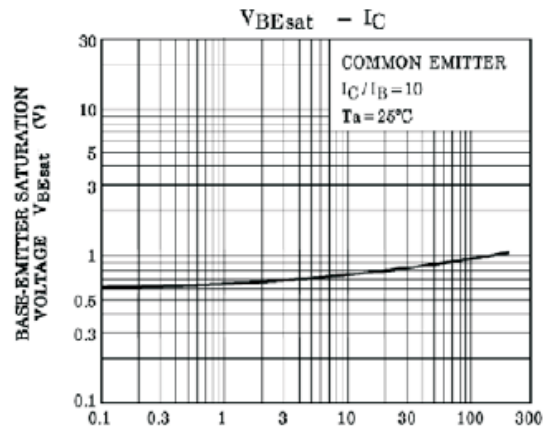


Fig.4 Collector Current

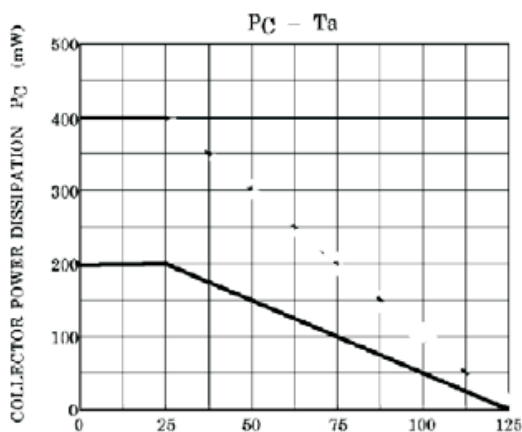


Fig.5 Ambient Temperature

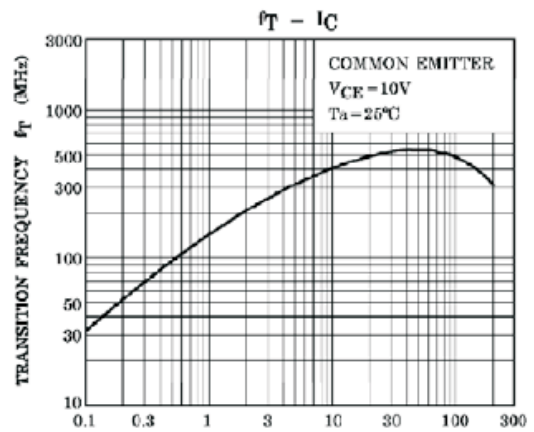


Fig.6 Emitter Current