TO-92 Plastic-Encapsulate Transistors

C1815 TRANSISTOR (NPN)

TO—92

1.EMITTER

2.COLLECTOR

3.BASE

1 2 3

FEATURES

Power dissipation

MAXIMUM RATINGS* T_A=25℃ unless otherwise noted

Symbol	Parameter	Value	Units
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_D	Total Device Dissipation	400	mW
T_J, T_{stg}	Junction and Storage Temperature	-55-150	℃

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

ELECTRICAL CHARACTERISTICS（Tamb=25℃ unless otherwise specified）

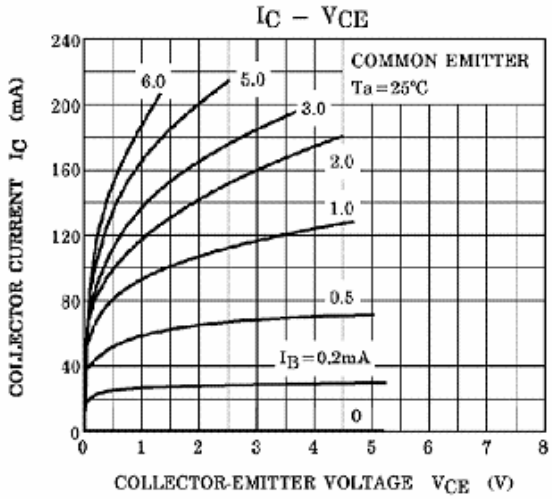
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V(BR)_{CBO}$	Ic= 100 uA, I_E=0	60			V
Collector-emitter breakdown voltage	$V(BR)_{CEO}$	Ic= 0. 1 mA, I_B=0	50			V
Emitter-base breakdown voltage	$V(BR)_{EBO}$	I_E= 100 uA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}= 60 V , I_E=0			0.1	uA
Collector cut-off current	I_{CEO}	V_{CE}= 50 V , I_B=0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 5 V, I_C=0			0.1	uA
DC current gain	$h_{FE(1)}$	V_{CE}= 6 V, I_C= 2mA	70		700	
Collector-emitter saturation voltage	V_{CE}(sat)	I_C= 100mA, I_B= 10 mA			0.25	V
Base-emitter saturation voltage	V_{BE}(sat)	I_C= 100 mA, I_B= 10mA			1	V
Transition frequency	f_T	V_{CE}= 10 V, I_C= 1mA f=30MHz	80			MHz
Collector Output Capacitance	Cob	VCB=10V,IE=0 f=1MHZ			3.5	pF
Noise Figure	NF	V_{CE}= 6 V, I_C=0.1 mA f =1KHz,RG=10K			10	dB

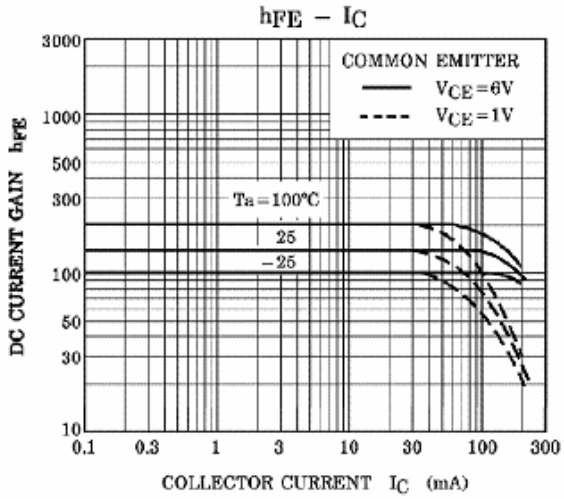
CLASSIFICATION OF $h_{FE(1)}$

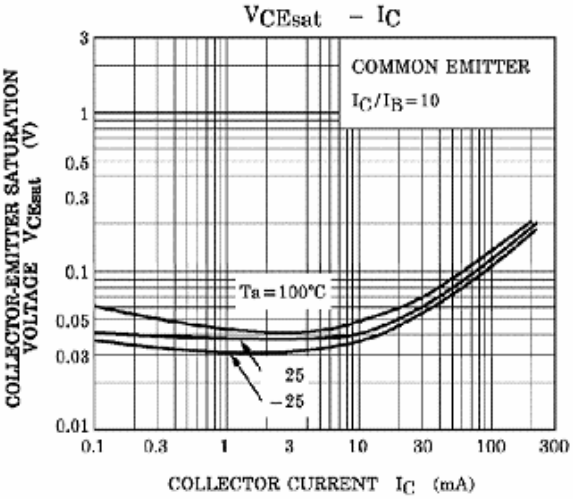
Rank	O	Y	GR	BL
Range	70-140	120-240	200-400	350-700

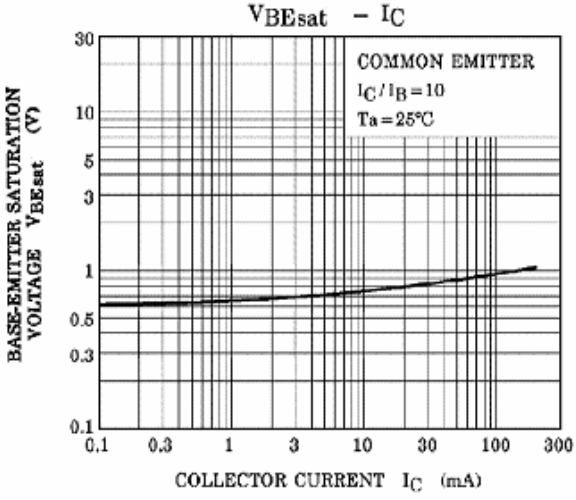
MOBICON Electronic Components

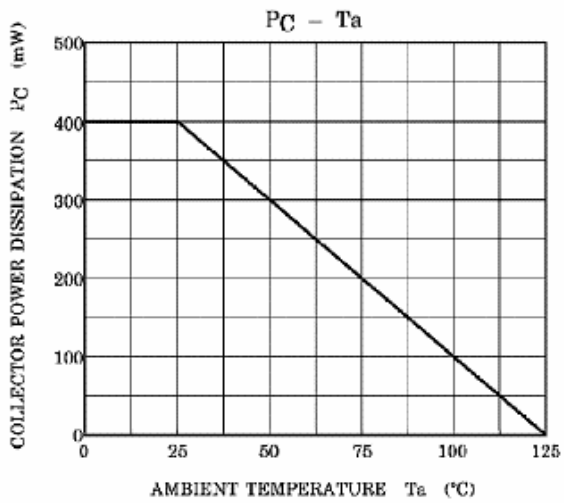
Typical Characteristics C1815

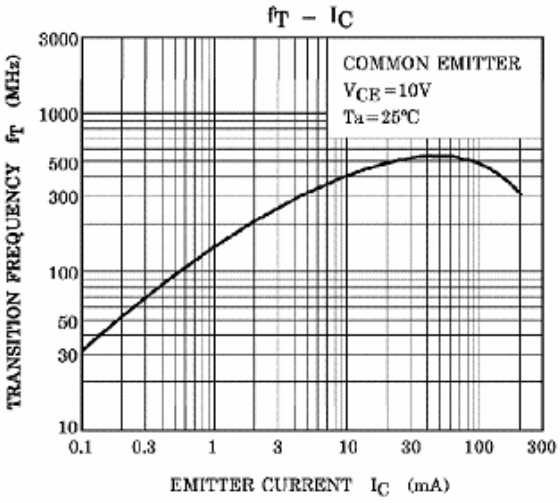












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