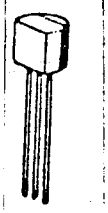
MICRO ELECTRONICS

2SC1815

NPN
SILICON
TRANSISTOR

2SC1815 is NPN silicon epitaxial transistor designed for RF, AF amplifier and general purpose applications.

TO-92B



ECB

ABSOLUTE MAXIMUM RATINGS

Collector-Base Voltage	V_{CBO}	45V
Collector-Emitter Voltage	V_{CEO}	40V
Emitter-Base Voltage	V_{EBO}	5V
Collector Current	I_C	100mA
Total Power Dissipation	P_{tot}	300mW
Operating Junction and Storage Temperature	T_j, T_{stg}	-55 to 125°C

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

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Emitter Breakdown Voltage	LV_{CEO}	40			V	I_C=10mA I_B=0*
Collector Cutoff Current	I_{CBO}			100	nA	V_{CB}=18V I_E=0
Emitter Cutoff Current	I_{EBO}			1	μA	V_{EB}=5V I_C=0
D.C. Current Gain	H_{FE}	70		700		I_C=2mA V_{CE}=6V
Group O		70		140		
Group Y		120		240		
Group GR		200		400		
Group BL		**350**		**700**		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			0.4	V	I_C=10mA I_B=1mA
Current Gain-Bandwidth Product	f_T	80	200		MHz	I_C=1mA V_{CE}=10V
Output Capacitance	C_{ob}		2	3.5	pF	V_{CB}=10V f=1MHz

* Pulse Test : Pulse Width = 300μS, Duty Cycle = 1%.

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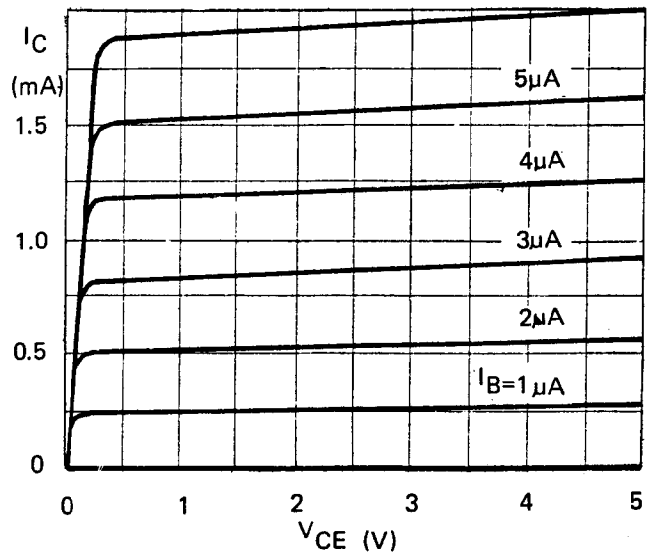
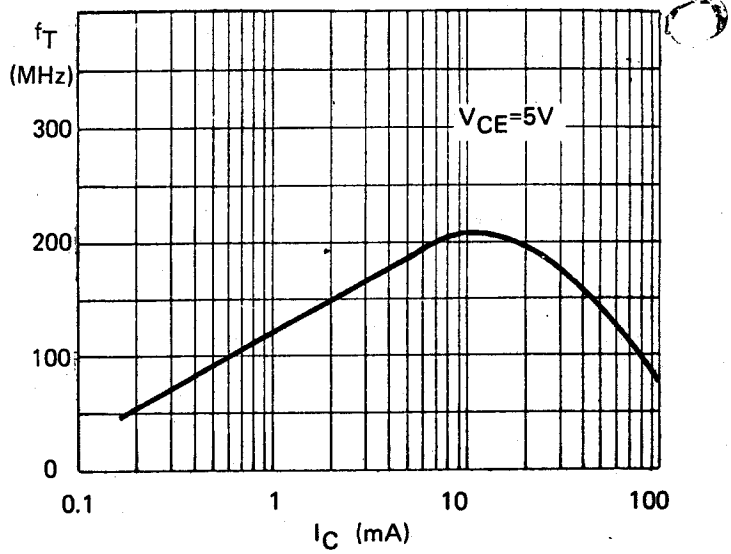
1-A. pnp

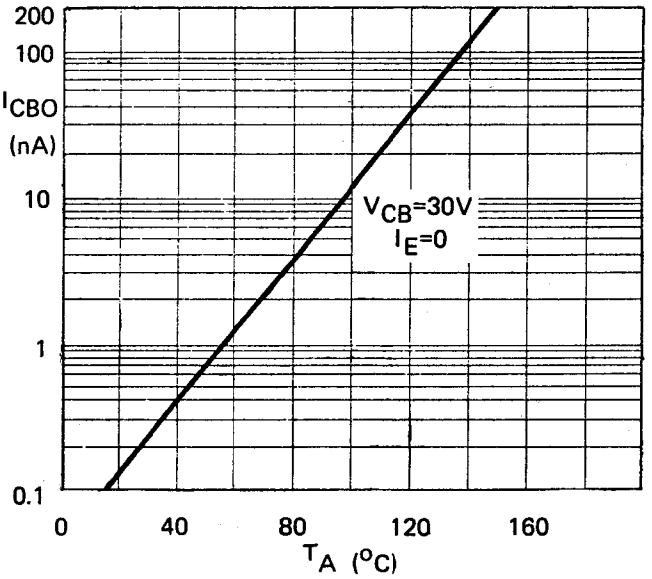
COMMON EMITTER
OUTPUT CHARACTERISTICS



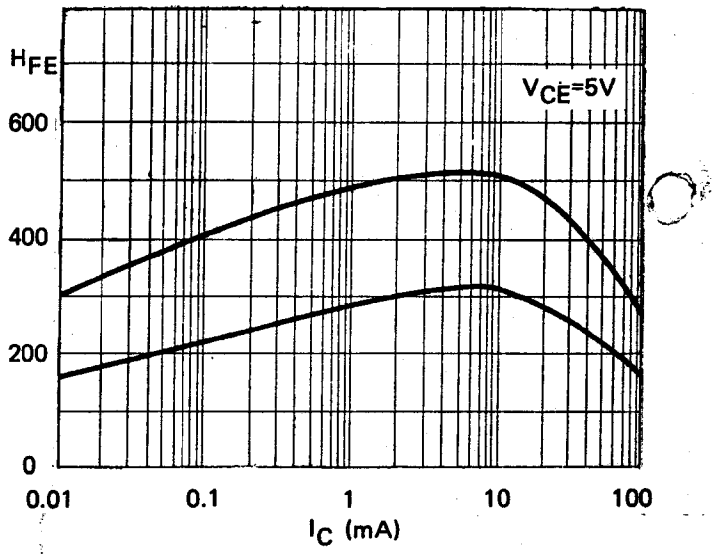
CURRENT GAIN – BANDWIDTH PRODUCT
vs COLLECTOR CURRENT



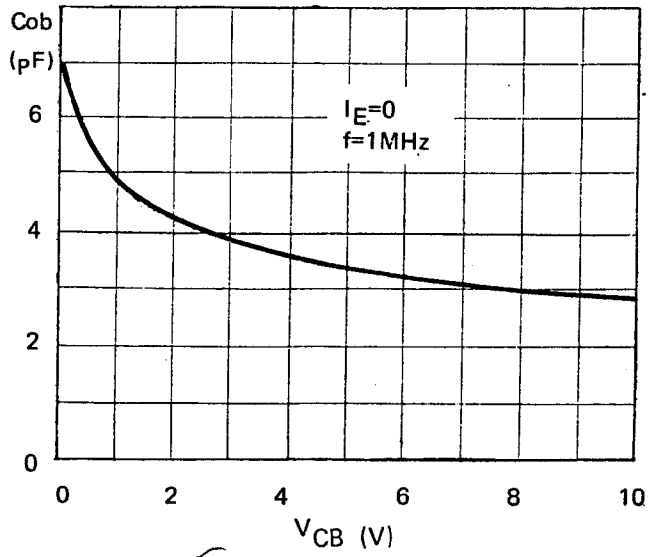
COLLECTOR CUTOFF CURRENT
vs AMBIENT TEMPERATURE



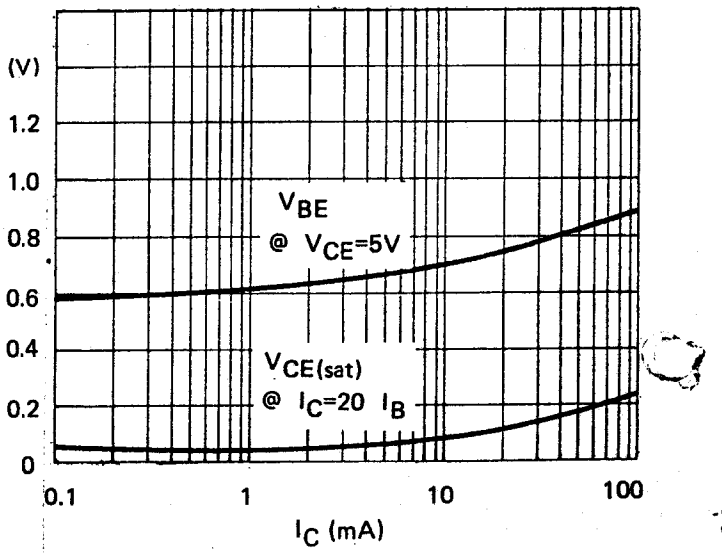
D.C. CURRENT GAIN
vs COLLECTOR CURRENT



COLLECTOR–BASE CAPACITANCE
vs COLLECTOR–BASE VOLTAGE



V_{BE} AND $V_{CE(sat)}$
vs COLLECTOR CURRENT



2SC1815

2-2.BMP