

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_{CB0}	45V
Collector-Emitter Voltage	V_{CE0}	40V
Emitter-Base Voltage	V_{EB0}	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 ($T_A=25^\circ\text{C}$ unless otherwise specified)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Emitter Breakdown Voltage	V_{CE0}	40			V	$I_C=10\text{mA}$ $I_B=0^*$
Collector Cutoff Current	I_{CB0}			100	nA	$V_{CB}=18\text{V}$ $I_E=0$
Emitter Cutoff Current	I_{EB0}			1	μA	$V_{EB}=5\text{V}$ $I_C=0$
D.C. Current Gain	H_{FE}	70		700		$I_C=2\text{mA}$ $V_{CE}=6\text{V}$
	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	$I_C=10\text{mA}$ $I_B=1\text{mA}$
Current Gain-Bandwidth Product	f_T	80	200		MHz	$I_C=1\text{mA}$ $V_{CE}=10\text{V}$
Output Capacitance	C_{ob}		2	3.5	pF	$V_{CB}=10\text{V}$ $f=1\text{MHz}$

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



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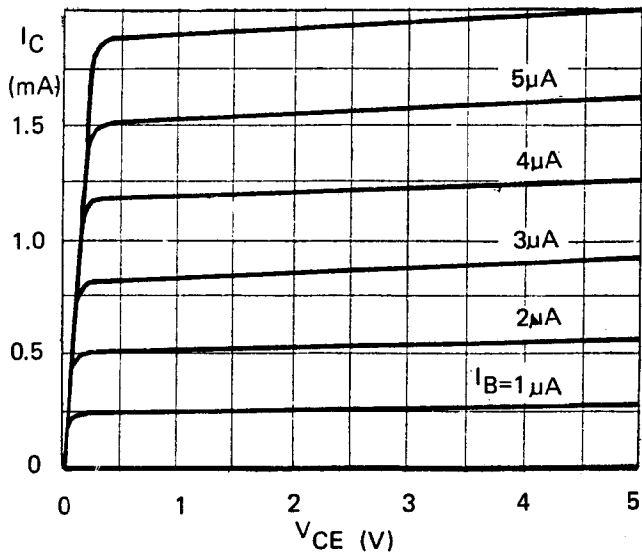
38 Hung To Road, Kwun Tong, Kowloon, Hong Kong. Cable: Microtron, Hong Kong. Telex: 43510 Micro HX.

P.O. Box 9477, Kwun Tong. Tel: 3-430181-6 3-893363, 3-892423, 3-898221 FAX: 3-410321

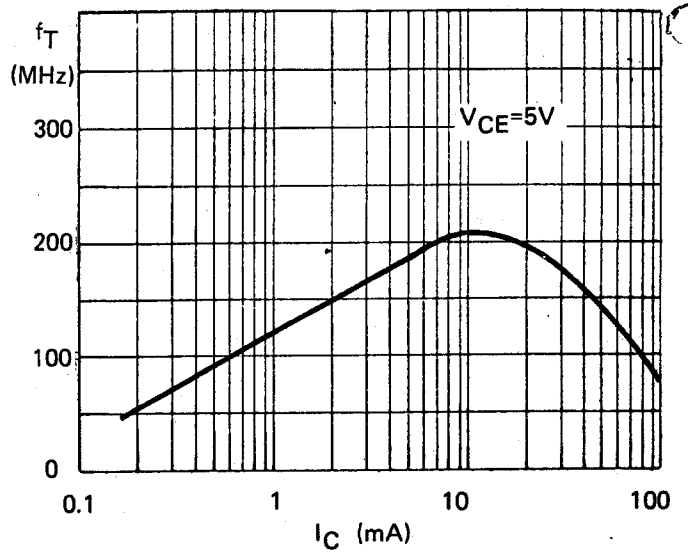
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1-d. PMP

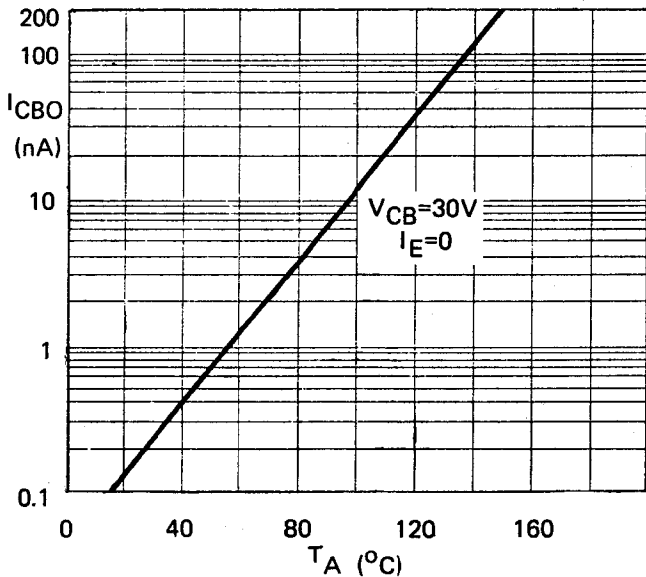
COMMON EMITTER
OUTPUT CHARACTERISTICS



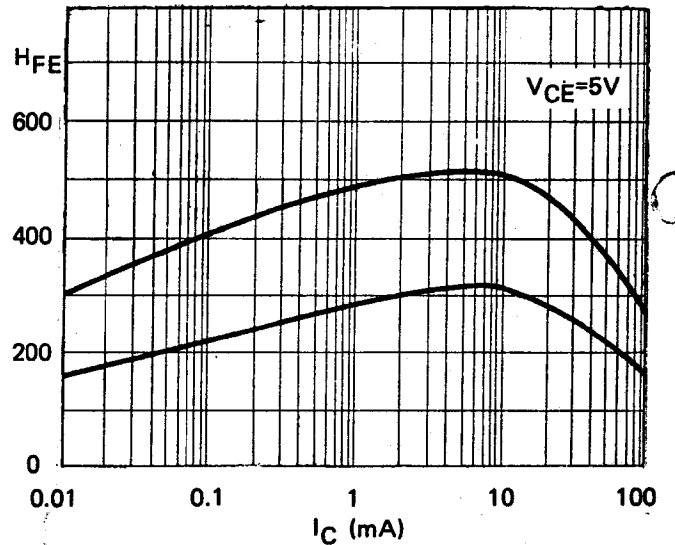
CURRENT GAIN - BANDWIDTH PRODUCT
VS COLLECTOR CURRENT



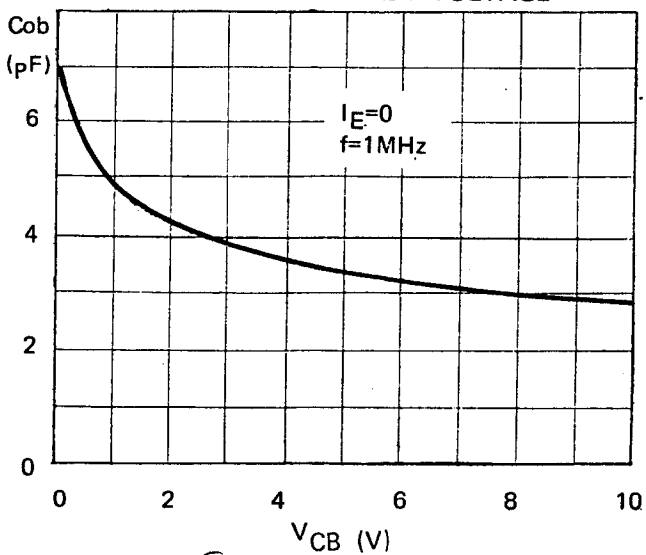
COLLECTOR CUTOFF CURRENT
VS AMBIENT TEMPERATURE



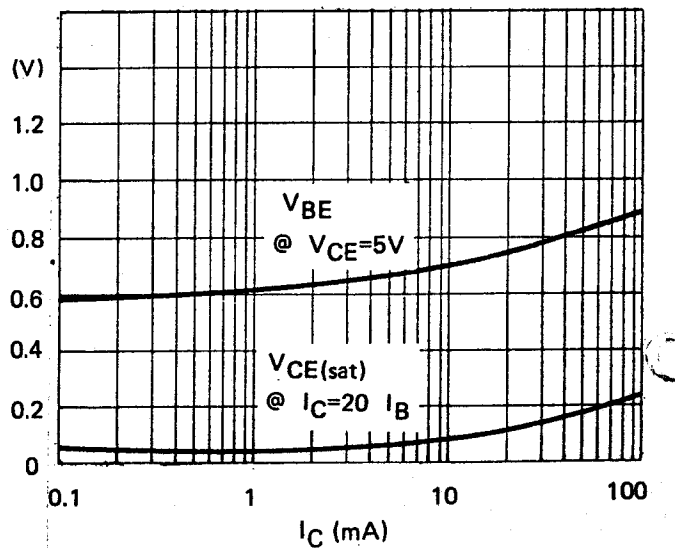
D.C. CURRENT GAIN
VS COLLECTOR CURRENT



COLLECTOR-BASE CAPACITANCE
VS COLLECTOR-BASE VOLTAGE



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



25C 1815 #

2-2-BMP

This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.