Elektronische Bauelemente

2SA1020

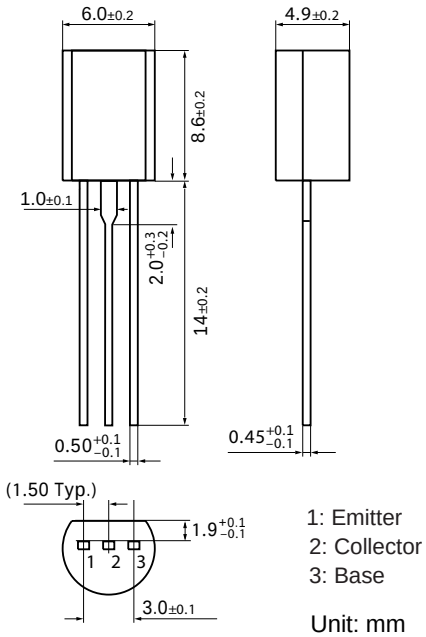
PNP Transistor

Plastic-Encapsulate Transistors

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

TO-92 MOD



1: Emitter
2: Collector
3: Base

Unit: mm

FEATURE

Power Amplifier Applications

MAXIMUM RATINGS Ta=25°C unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-2	A
P_D	Total Power Dissipation	900	mW
T_J,T_{stg}	Junction and Storage Temperature	-55~+150	°C

ELECTRICAL CHARACTERISTICS Tamb=25°C unless otherwise specified

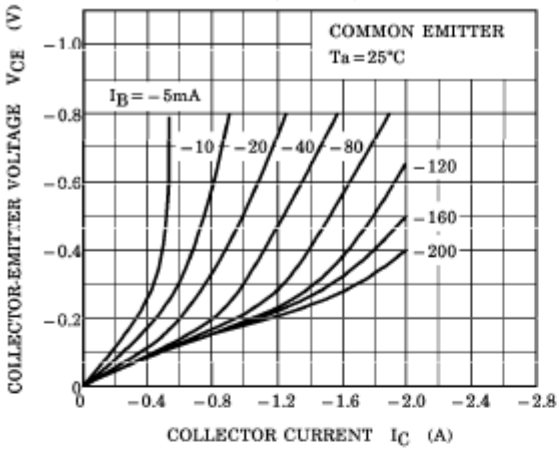
Parameter	Symbol	Min	Typ.	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	-50	-	-	V	I_C=-100μA,I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	-50	-	-	V	I_C=-1mA,I_B=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	-5	-	-	V	I_E=-100μA,I_C=0
Collector-Base Cutoff Current	I_{CBO}	-	-	-1	uA	V_{CB}=-50V,I_E=0
Emitter-Base Cutoff Current	I_{EBO}	-	-	-1	uA	V_{BE}=-5V,I_C=0
Collector Saturation Voltage	V_{CE}(sat)	-	-	-0.5	V	I_C=-1A,I_B=-50mA
Base Satruation Voltage	V_{BE}(sat)	-	-	-1.2	V	I_C=-1A,I_B=-50mA
DC Current Gain	h_{FE}1	70	-	240		V_{CE}=-2V, I_C=-500A
Gain-Bandwidth Product	fT	-	100	-	MHz	V_{CE}=-2V, I_C=-500mA
Output Capacitance	Cob	-	40	-	pF	V_{CB}=-10V, f=1MHz

Classification of hFE1

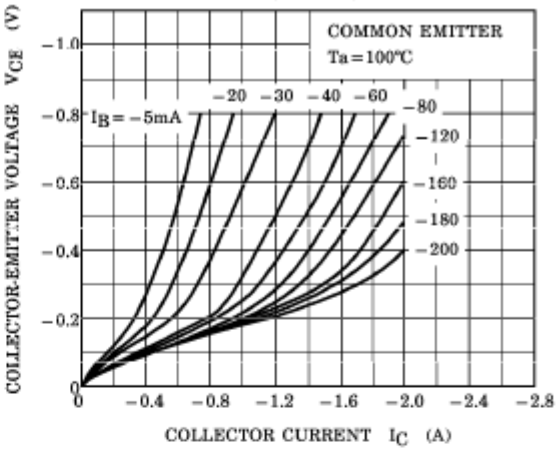
Rank	O	Y
Range	70~140	120~240

Typical Characteristics

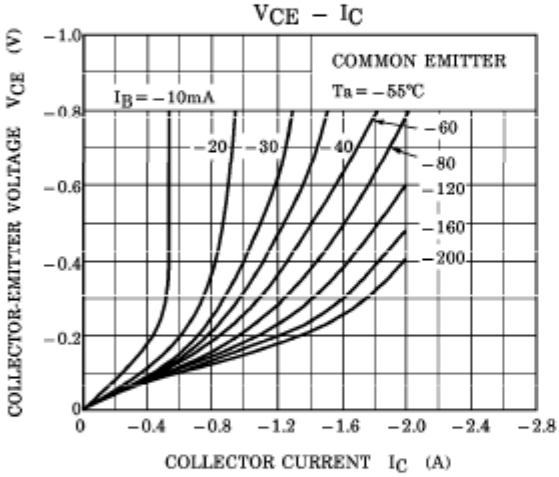
V_{CE} – I_C



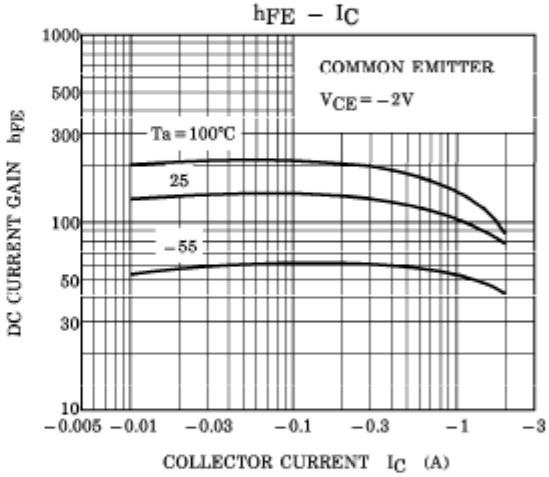
V_{CE} – I_C



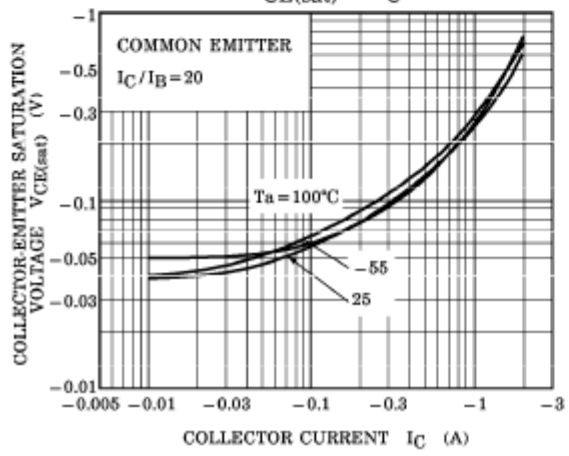
V_{CE} – I_C



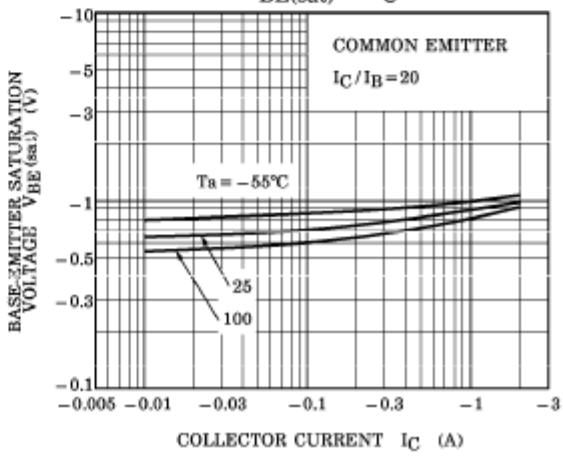
h_{FE} – I_C



$V_{CE(sat)}$ – I_C



$V_{BE(sat)}$ – I_C



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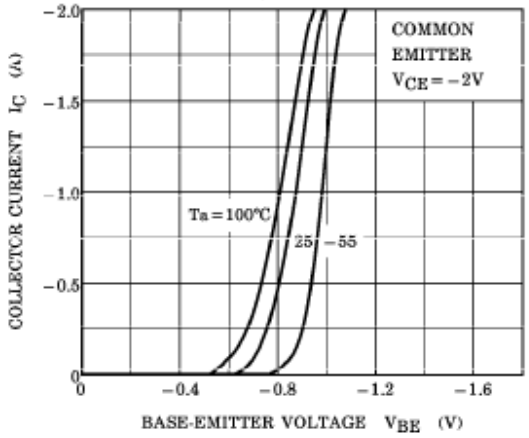
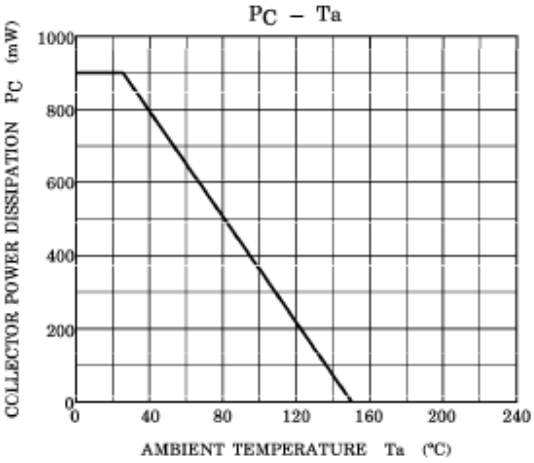
$I_C - V_{BE}$



$P_C - Ta$



SAFE OPERATION AREA