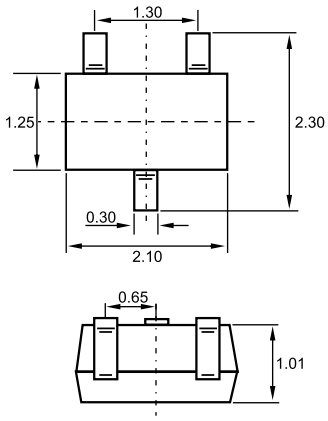
2SC4215

SOT-323 Bipolar Transistor(NPN)

1. BASE
2. EMITTER
3. COLLECTOR

SOT-323



Dimensions in inches and (millimeters)

Features

- ✧ Small reverse transfer capacitance: Cre= 0.55pF(typ.)
- ✧ Low noise figure: NF=2dB (typ.) (f=100 MHz)

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current -Continuous	20	mA
P_C	Collector Power Dissipation	100	mW
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	4			V
Collector cut-off current	I_{CBO}	V_{CB}=40V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			0.5	μA
DC current gain	h_{FE}	V_{CE}=6V,I_C=1mA	40		200	
Collector-base time constant	Cc.r_{bb}'	V_{CE}=6V,I_C=1mA, f=30MHz			25	ps
Transition frequency	f_T	V_{CE}=6V,I_C=1mA,	260	550		MHz
Reverse transfer capacitance	C_{re}	V_{CB}=10V,f=1MHz		0.55		pF
Noise figure	NF	V_{CC}=6V,I_c=1mA,f=100MHz		2	5	dB
Power gain	Gpe		17	23		dB

CLASSIFICATION OF h_{FE}

Rank	R	O	Y
Range	40-80	70-140	100-200
Marking	QR	QO	QY

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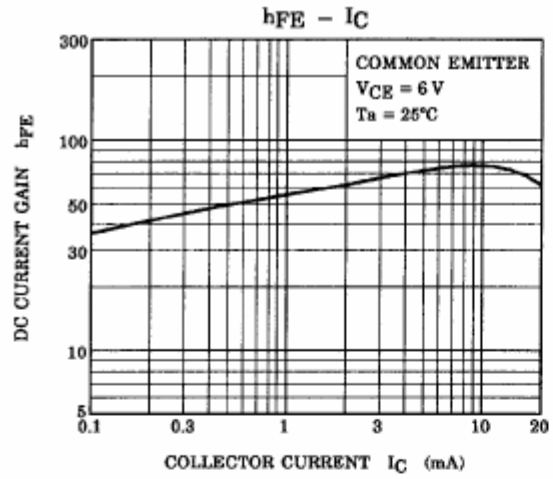
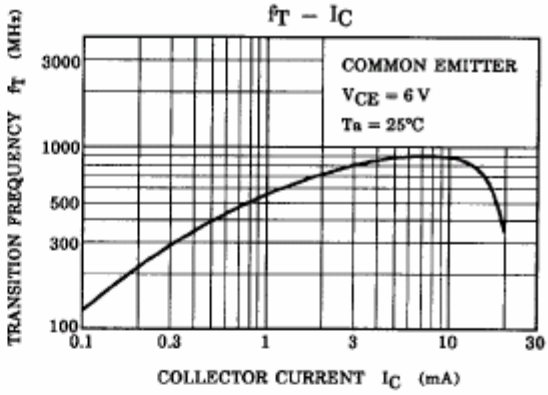
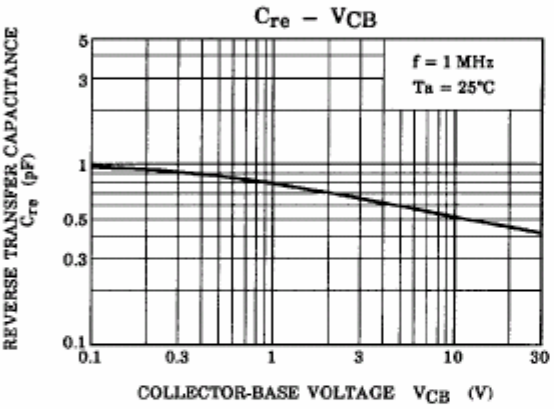
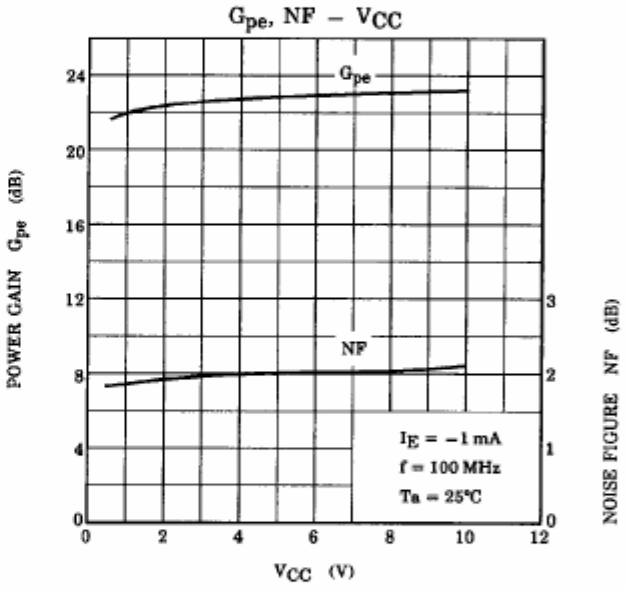
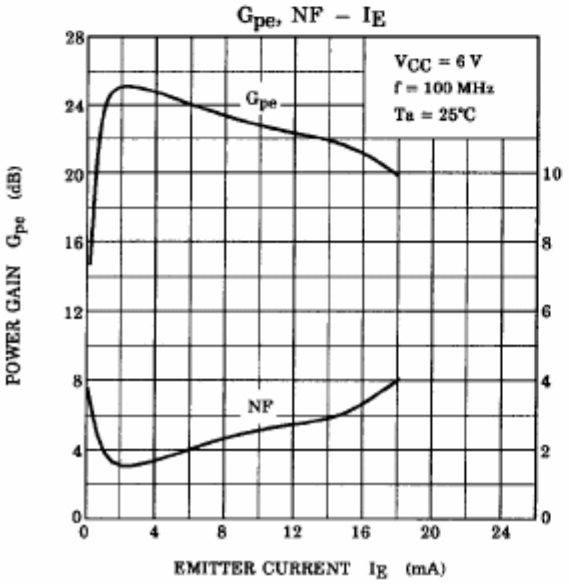
Typical Characteristics

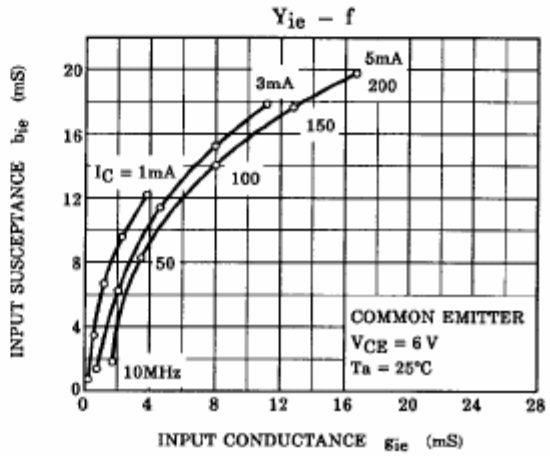












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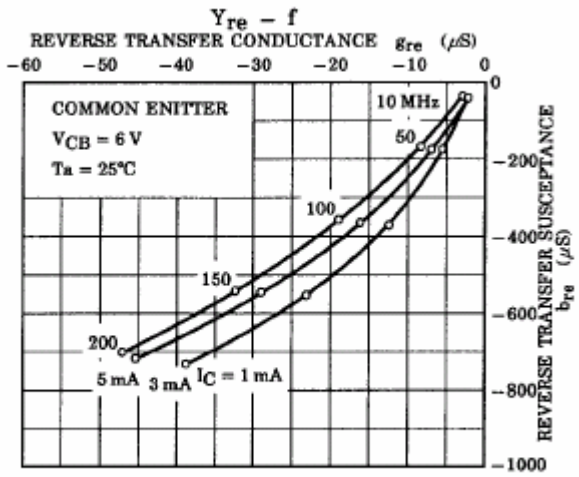

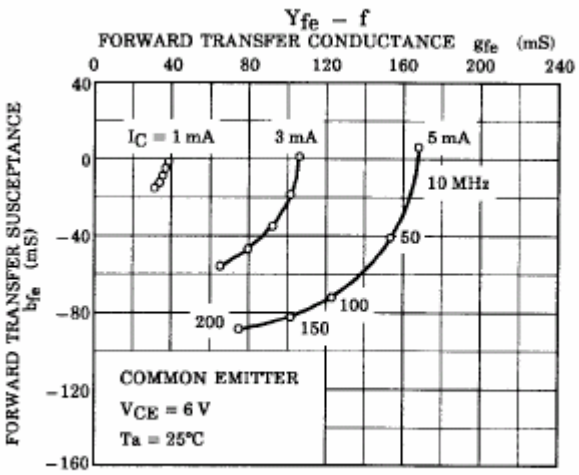

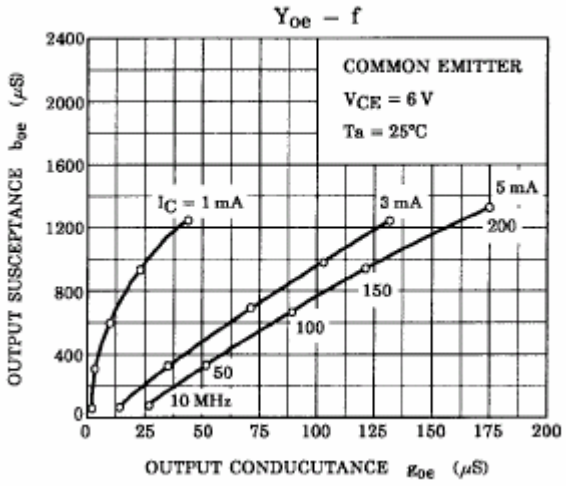

Package	Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)
SOT -323	3000pcs	7inch	45,000pcs	203×203×195	180,000pcs	438×438×220