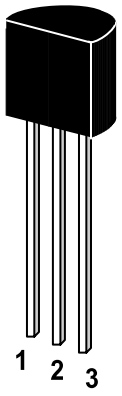
ST 2SC535

NPN Silicon Epitaxial Planar Transistor

VHF amplifier, mixer, local oscillator.

The transistor is subdivided into two groups B and C according to its DC current gain

On special request, these transistors can be manufactured in different pin configurations.



1. Emitter 2. Collector 3. Base

TO-92 Plastic Package
Weight approx. 0.19g

Absolute Maximum Ratings (T_a = 25°C)

	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	30	V
Collector Emitter Voltage	V_{CEO}	20	V
Emitter Base Voltage	V_{EBO}	4	V
Collector Current	I_C	20	mA
Power Dissipation	P_{tot}	100	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	-55 to +150	°C

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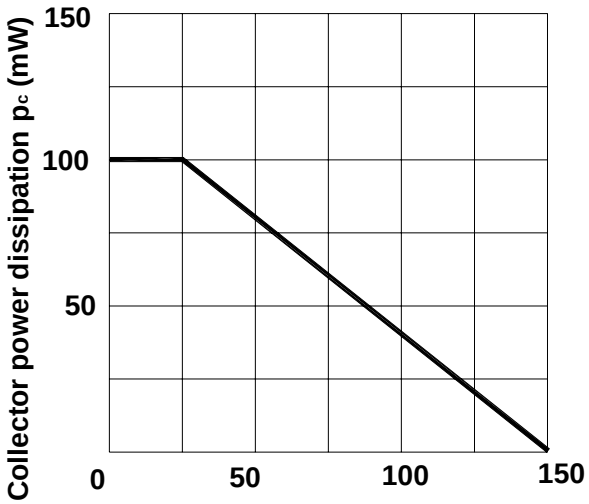
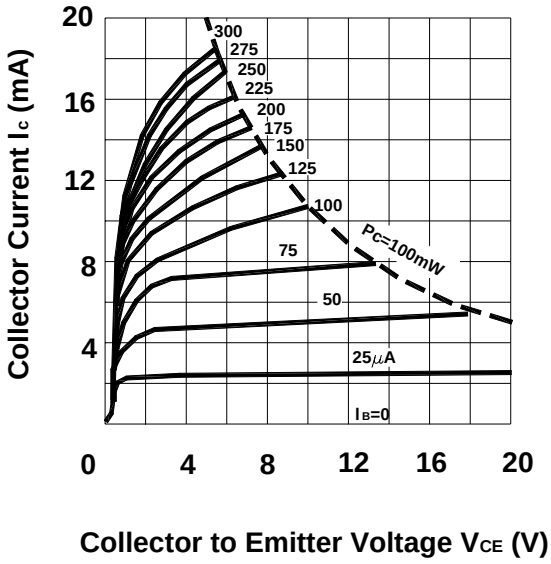
Characteristics at T_{amb}=25 ^{o}C

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE}=6V, I_C=1mA					
Current Gain Group B	h_{FE}	60	-	120	-
C	h_{FE}	100	-	200	-
Collector Base Breakdown Voltage at I_C=10μA	$V_{(BR)CBO}$	30	-	-	V
Collector Emitter Breakdown Voltage at I_C=1Ma	$V_{(BR)CEO}$	20	-	-	V
Emitter Base Breakdown Voltage at I_E=10μA	$V_{(BR)EBO}$	4	-	-	V
Collector Cutoff Current at V_{CB}=10V	I_{CBO}	-	-	0.5	μA
Collector Saturation Voltage at I_C=20mA, I_B=4mA	$V_{CE(sat)}$	-	0.17	-	V
Base Emitter Voltage at V_{CE}=6V, I_C=1mA	V_{BE}	-	0.72	-	V
Gain Bandwidth Product at V_{CE}=6V, I_C=5mA	f_T	450	940	-	MHz
Output Capacitance at V_{CB}=10V, f=1MHz	C_{OB}	-	0.9	1.2	pF
Noise Figure at V_{CE}=6V, f=100MHz, I_C=1mA, R_g=50Ω	NF	-	3.5	5.5	dB
Power Gain at V_{CE}=6V, f=100MHz, I_C=1mA	PG	17	20	-	dB
Input admittance(typ) at V_{CE}=6V, f=100MHz, I_C=1mA	yie	1.3+j5.3	-	-	mS
Reverse transfer admittance(typ) at V_{CE}=6V, f=100MHz, I_C=1mA	yre	-0.078-j0.41	-	-	mS
Foward transfer admittance(typ) at V_{CE}=6V, f=100MHz, I_C=1mA	yfe	32-j10	-	-	mS
Output admittance(typ) at V_{CE}=6V, f=100MHz, I_C=1mA	yoe	0.08+j0.82	-	-	mS

Maximum Collector Dissipation Curve



Typical Output Characteristics



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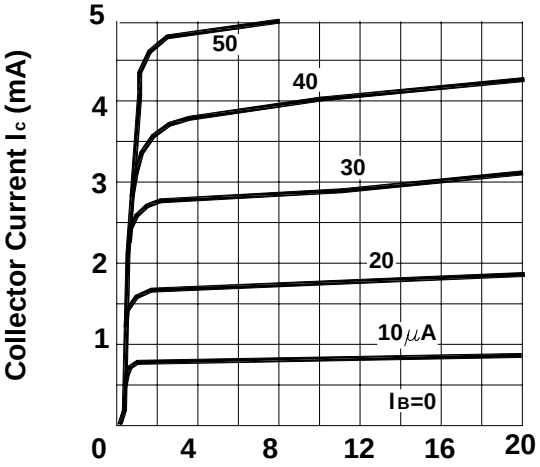

DC Current Transfer Ratio vs. Collector Current