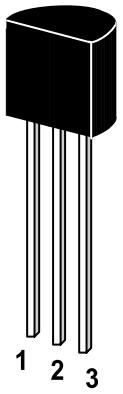
ST 2SC2412

NPN Silicon Epitaxial Planar Transistor
for general purpose applications.

The transistor is subdivided into three groups Q, R and S. according to its DC current gain.



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}	60	V
Collector Emitter Voltage	V_{CEO}	50	V
Emitter Base Voltage	V_{EBO}	7	V
Collector Current	I_C	150	mA
Power Dissipation	P_{tot}	200	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	Q	h_{FE}	120	-	270	-
	R	h_{FE}	180	-	390	-
	S	h_{FE}	270	-	560	-
Collector Base Breakdown Voltage at I_C=50μA		$V_{(BR)CBO}$	60	-	-	V
Collector Emitter Breakdown Voltage at I_C=1mA		$V_{(BR)CEO}$	50	-	-	V
Emitter Base Breakdown Voltage at I_E=50μA		$V_{(BR)EBO}$	7	-	-	V
Collector Cutoff Current at V_{CB}=60V		I_{CBO}	-	-	0.1	μA
Emitter Cutoff Current at V_{EB}=7V		I_{EBO}	-	-	0.1	μA
Collector Saturation Voltage at I_C=50mA, I_B=5mA		$V_{CE(sat)}$	-	-	0.4	V
Gain Bandwidth Product at V_{CE}=12V, $-I_E$=2mA, f=100MHz		f_T	-	180	-	MHz
Output Capacitance at V_{CE}=12V, f=1MHz		C_{OB}	-	2	3.5	pF

Fig. 1 Grounded emitter propagation characteristics

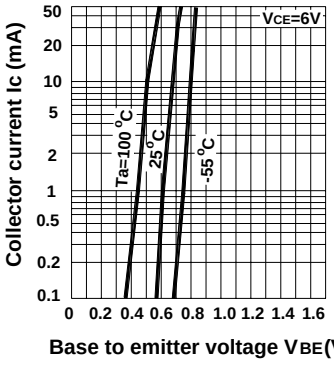

Fig.2 Grounded emitter output characteristics(I)

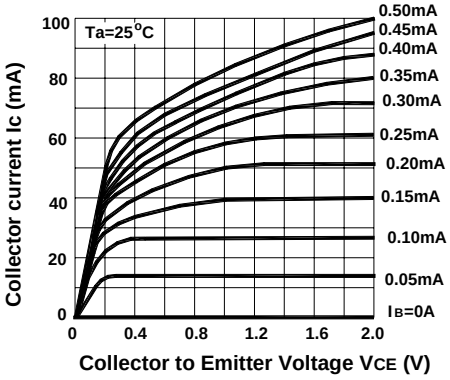

Fig.3 Grounded emitter output characteristics(II)

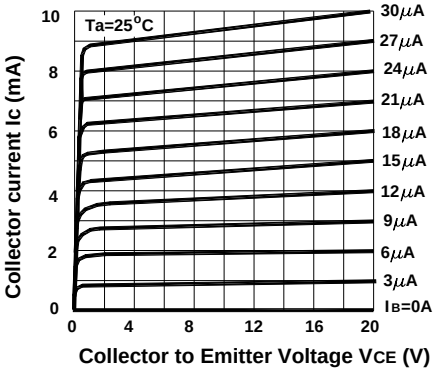

Fig.4 DC current gain vs. collector current (I)

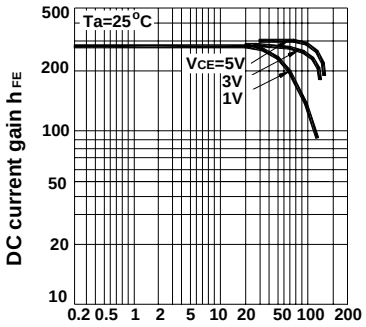

Fig.5 DC current gain vs. collector current (II)

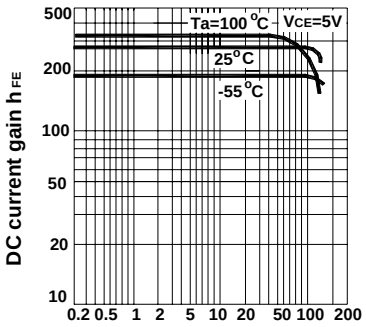

Fig.6 Collector-emitter saturation voltage vs. collector current

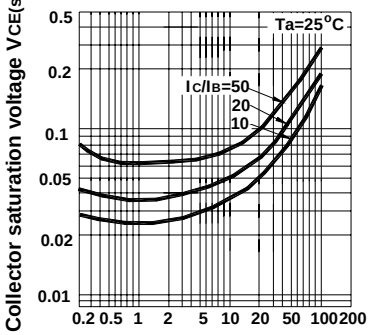

Fig.7 Collector-emitter saturation voltage vs. collector current(I)

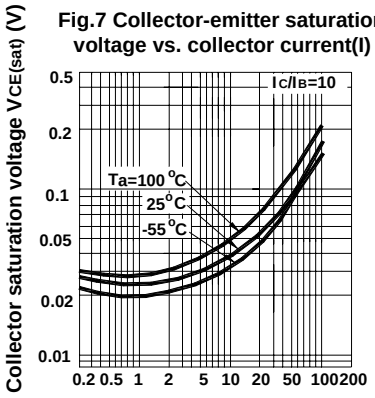

Fig.8 Collector-emitter saturation voltage vs. collector current(II)

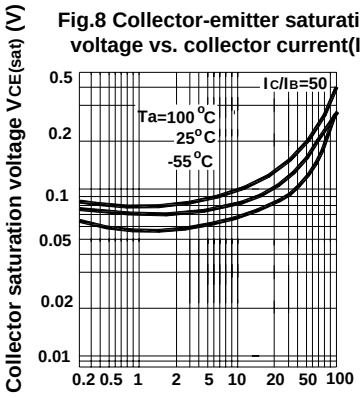

Fig.9 Gain bandwidth product vs. emitter current

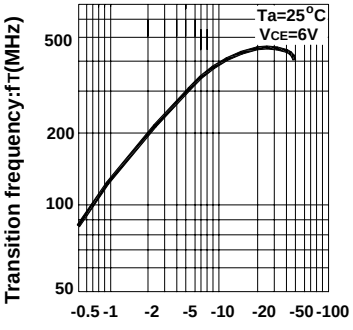

Fig.10 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

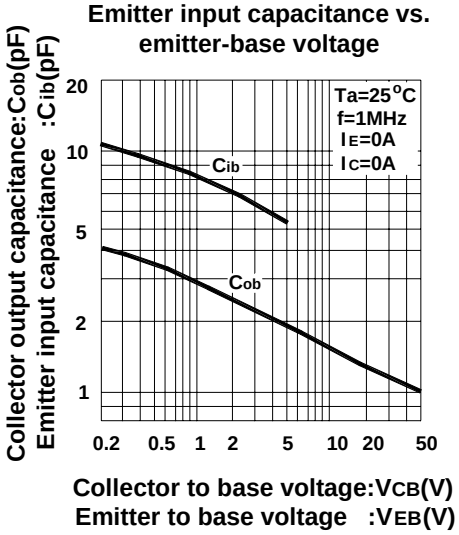

Fig.11 Base-collector time constant vs. emitter current