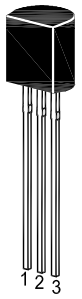
ST 2SC401

NPN Silicon Epitaxial Planar Transistor

for low saturation switching and voltage regulator applications.



1. Emitter 2. Collector 3. Base
TO-92 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	80	V
Collector Emitter Voltage	V_{CEO}	60	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	1	A
Power Dissipation	P_{tot}	625	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V_{CE} = 2 V, I_C = 100 mA at V_{CE} = 2 V, I_C = 1 A	 h_{FE} h_{FE}	 200 80	 - -	 400 -	 - -
Collector Base Cutoff Current at V_{CB} = 60 V	I_{CBO}	-	-	100	nA
Emitter Base Cutoff Current at V_{EB} = 5 V	I_{EBO}	-	-	100	nA
Collector Emitter Breakdown Voltage at I_C = 1 mA	$V_{(BR)CEO}$	60	-	-	V
Collector Emitter Saturation Voltage at I_C = 500 mA, I_B = 50 mA	$V_{CE(sat)}$	-	-	0.4	V
Base Emitter on Voltage at V_{CE} = 2 V, I_C = 500 mA	$V_{BE(on)}$	-	-	1.2	V
Gain Bandwidth Product at V_{CB} = 10 V, I_C = 50 mA	f_T	-	160	-	MHz
Output Capacitance at V_{CB} = 10 V, f = 1 MHz	C_{ob}	-	10	-	pF

Fig. 1 P_C - Ta

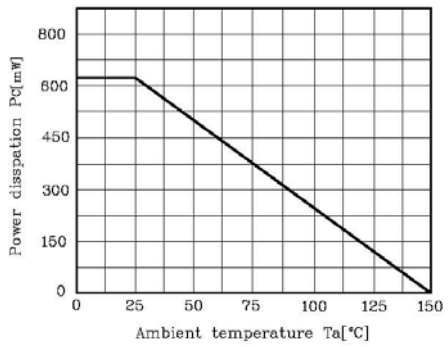


Fig. 2 V_{CE} - I_C

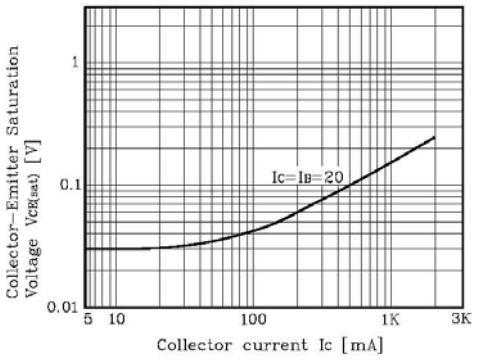


Fig. 3 h_{FE}-I_C

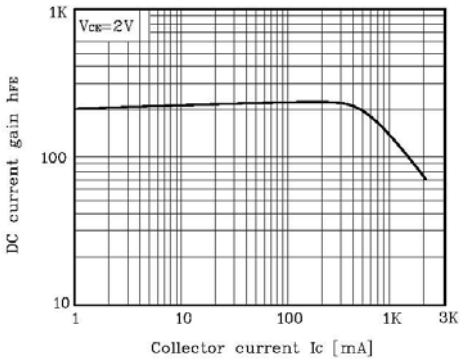


Fig. 4 Cob - V_{CB}

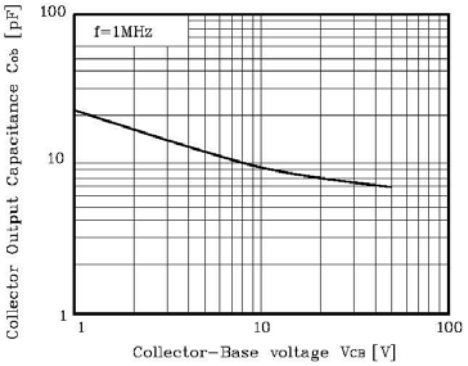


Fig. 5 I_C - V_{CE}

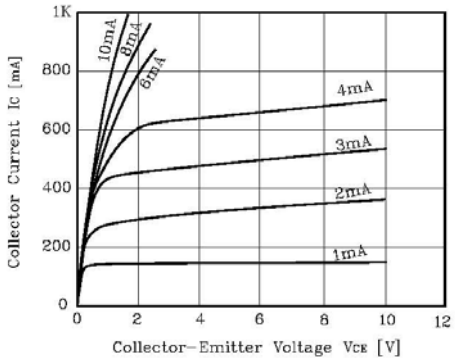


Fig. 6 I_C - V_{CE}

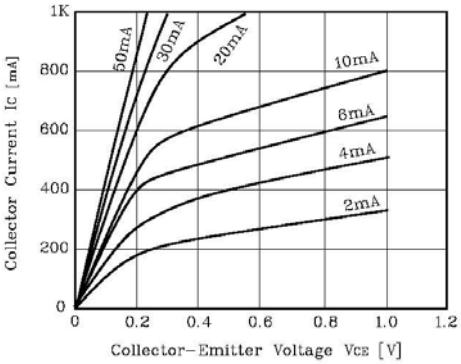


Fig. 7 f_T - I_C