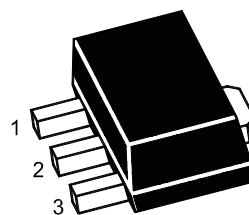


SOT-89 Plastic-Encapsulate Transistors

2N5401U TRANSISTOR (PNP)

FEATURE

- Switching and amplification in high voltage
Applications such as telephony
- Low current(max. 500mA)
- High voltage(max.160v)



1.Base 2.Collector 3.Emitter
SOT-89 Plastic Package

MARKING: 5401

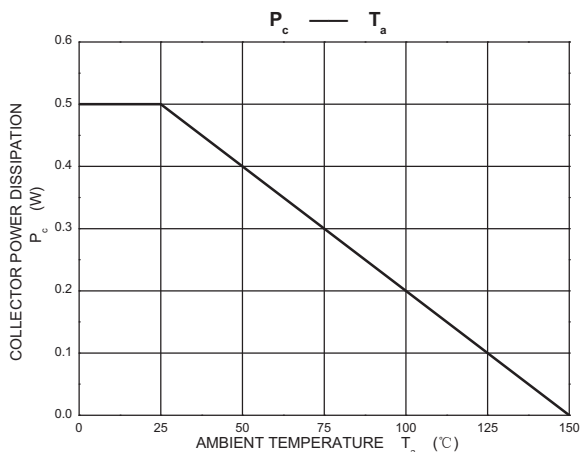
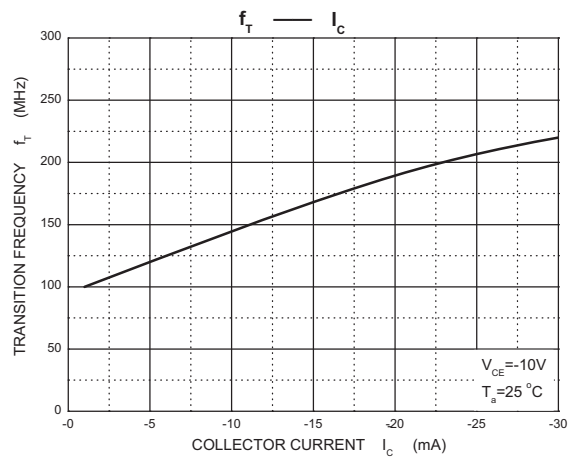
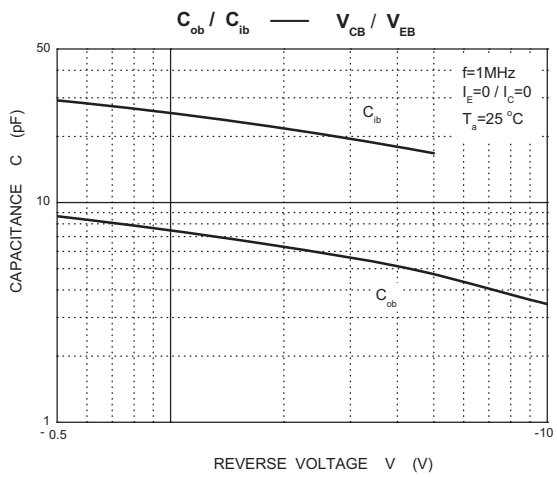
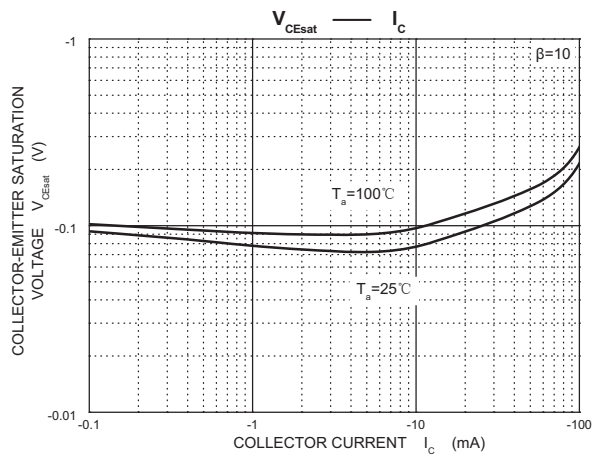
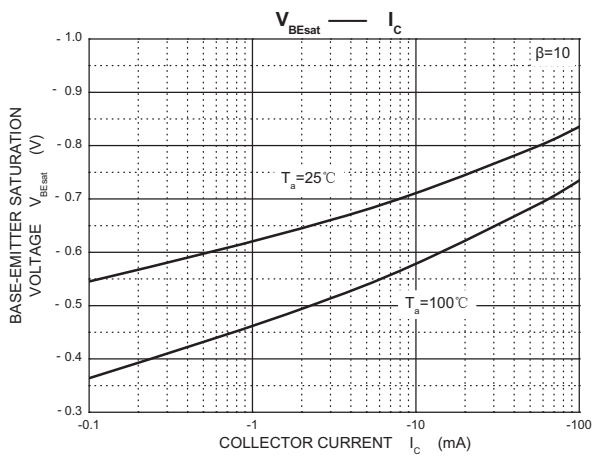
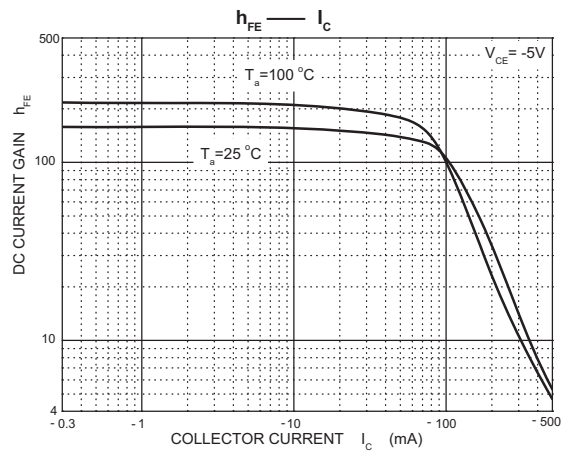
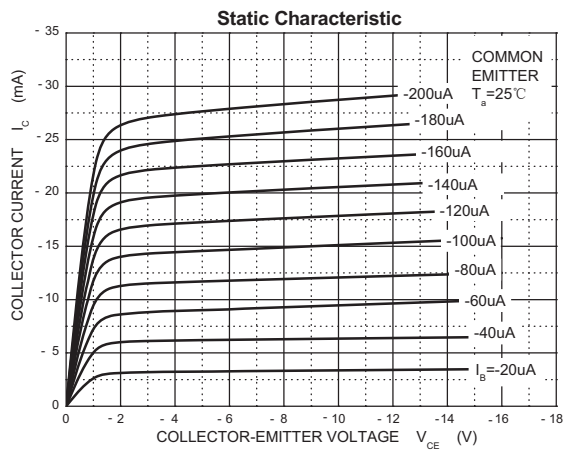
MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	-160	V
V _{CE0}	Collector-Emitter Voltage	-150	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-0.5	A
P _C	Collector Power Dissipation	0.5	W
R _{θJA}	Thermal Resistance From Junction To Ambient	250	°C/W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C

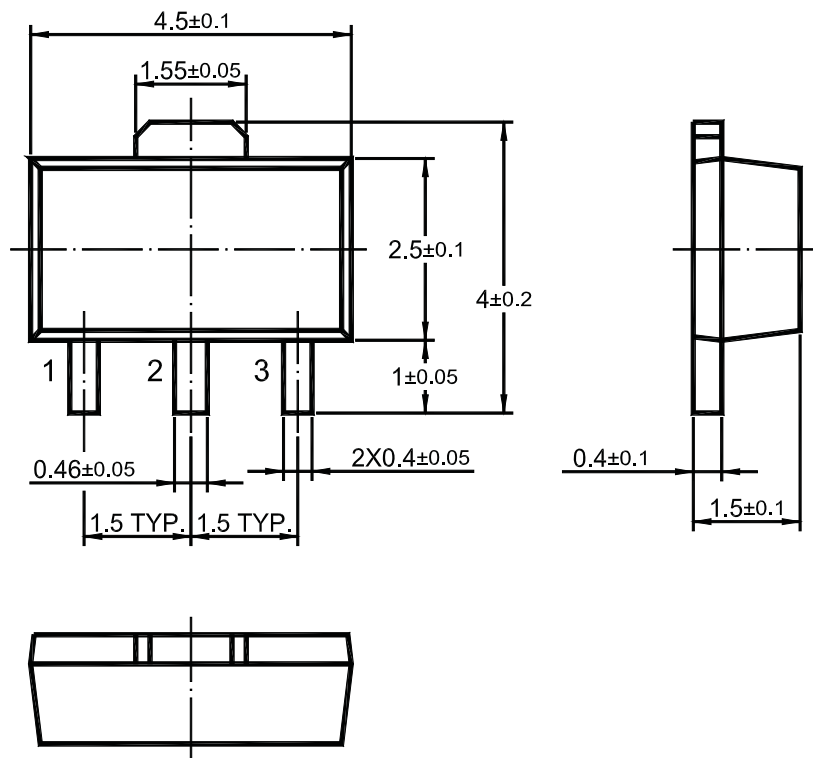
ELECTRICAL CHARACTERISTICS(T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = -100μA, I _E =0	-160			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = -1mA, I _B =0	-150			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = -10μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} = -120 V, I _E =0			-50	nA
Emitter cut-off current	I _{EBO}	V _{EB} = -3V, I _C =0			-50	nA
DC current gain	h _{FE(1)}	V _{CE} = -5V, I _C =-1 mA	50			
	h _{FE(2)}	V _{CE} = -5V, I _C = -10 mA	60		300	
	h _{FE(3)}	V _{CE} = -5V, I _C =-50 mA	50			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -10 mA, I _B = -1 mA			-0.2	V
	V _{CE(sat)}	I _C = -50 mA, I _B = -5 mA			-0.5	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -10 mA, I _B = -1 mA			-1	V
	V _{BE(sat)}	I _C = -50 mA, I _B = -5 mA			-1	V
Transition frequency	f _T	V _{CE} = -10V, I _C = -10mA, f = 100MHz	100		300	MHz
Output Capacitance	C _{ob}	V _{CB} =-10V, I _E = 0, f=1MHz			6	pF
Noise Figure	NF	V _{CE} = -5.0V, I _C = -200μA, R _S = 10Ω, f=10Hz to 15.7kHz			8	dB

Typical Characteristics



SOT-89 PACKAGE OUTLINE



Dimensions in mm