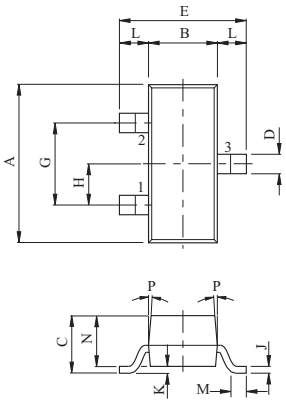
2N5401S

EPITAXIAL PLANAR PNP TRANSISTOR

GENERAL PURPOSE APPLICATION.
HIGH VOLTAGE APPLICATION.

FEATURES

· High Collector Breakdwon Voltage
: V_{CBO}=-160V, V_{CEO}=-150V
· Low Leakage Current.
: I_{CBO}=-50nA(Max.) @V_{CB}=-120V
· Low Saturation Voltage
: $V_{CE(sat)}$=-0.5V(Max.) @I_C=-50mA, I_B=-5mA
· Low Noise : NF=8dB (Max.)



DIM	MILLIMETERS
A	2.93±0.20
B	1.30+0.20/-0.15
C	1.30 MAX
D	0.45+0.15/-0.05
E	2.40+0.30/-0.20
G	1.90
H	0.95
J	0.13+0.10/-0.05
K	0.00 ~ 0.10
L	0.55
M	0.20 MIN
N	1.00+0.20/-0.10
P	7 °

1. EMITTER
2. BASE
3. COLLECTOR

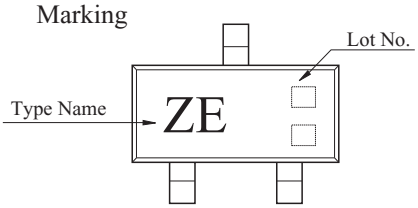
SOT-23

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-160	V
Collector-Emitter Voltage	V_{CEO}	-150	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-600	mA
Base Current	I_B	-100	mA
Collector Power Dissipation	P_C *	350	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

Note : * Package Mounted On 99.5% Alumina 10 ×8 ×0.6㎜)

Marking



ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=-120V, I_E=0	-	-	-50	nA
		V_{CB}=-120V, I_E=0, Ta=100℃	-	-	-50	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=-3V, I_C=0	-	-	-50	nA
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=-0.1mA, 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
DC Current Gain *	h_{FE}(1)	V_{CE}=-5V, I_C=-1mA	50	-	-	
	h_{FE}(2)	V_{CE}=-5V, I_C=-10mA	60	-	240	
	h_{FE}(3)	V_{CE}=-5V, I_C=-50mA	50	-	-	
Collector-Emitter Saturation Voltage *	$V_{CE(sat)}$1	I_C=-10mA, I_B=-1mA	-	-	-0.2	V
	$V_{CE(sat)}$2	I_C=-50mA, I_B=-5mA	-	-	-0.5	
Base-Emitter Saturation Voltage *	$V_{BE(sat)}$1	I_C=-10mA, I_B=-1mA	-	-	-1.0	V
	$V_{BE(sat)}$2	I_C=-50mA, I_B=-5mA	-	-	-1.0	
Transition Frequency	f_T	V_{CE}=-10V, I_C=-10mA, f=100MHz	100	-	300	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz	-	-	6	pF
Small-Signal Current Gain	h_{fe}	V_{CE}=-10V, I_C=-1mA, f=1kHz	40	-	200	
Noise Figure	NF	V_{CE}=-5V, I_C=-250μA Rg=1kΩ, f=10Hz～15.7kHz	-	-	8	dB

* Pulse Test : Pulse Width ≦300μS, Duty Cycle ≦2%.