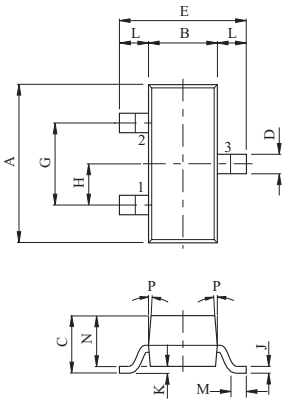
KN4400S/4401S

EPITAXIAL PLANAR NPN TRANSISTOR

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

FEATURES

· Complementary to the KN4402S/4403S



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

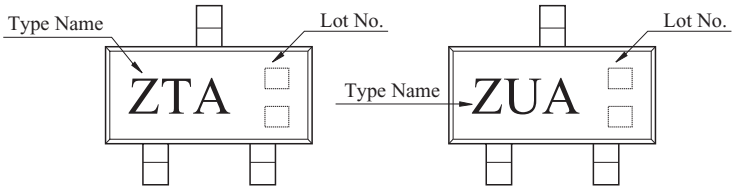
SOT-23

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	600	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



MARK SPEC

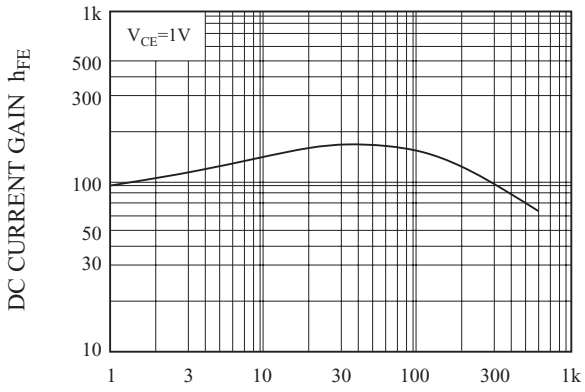
TYPE	MARK
KN4400S	ZTA
KN4401S	ZUA

ELECTRICAL CHARACTERISTICS (Ta=25℃)

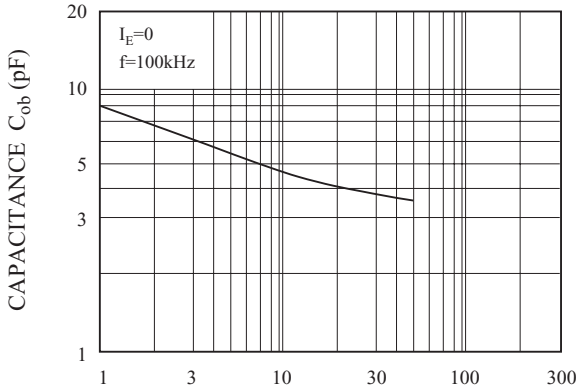
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CEX}	V_{CE}=35V, V_{EB}=0.4V	-	-	100	nA
Collector Cut-off Current		I_{CBO}	V_{CB}=60V, I_E=0	-	-	100	nA
Emitter Cut-off Current		I_{EBO}	V_{EB}=6V, I_C=0	-	-	100	nA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	I_C=100㎂, I_E=0	60	-	-	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	I_C=1mA, I_B=0	40	-	-	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	I_E=100㎂, I_C=0	6.0	-	-	V
DC Current Gain *	KN4401S	h_{FE}(1)	V_{CE}=1V, I_C=0.1mA	20	-	-	
	KN4400S	h_{FE}(1)	V_{CE}=1V, I_C=1mA	20	-	-	
	KN4401S	h_{FE}(2)		40	-	-	
	KN4400S	h_{FE}(2)	V_{CE}=1V, I_C=10mA	40	-	-	
	KN4401S	h_{FE}(3)		80	-	-	
	KN4400S	h_{FE}(3)	V_{CE}=1V, I_C=150mA	50	-	150	
	KN4401S	h_{FE}(4)		100	-	300	
	KN4400S	h_{FE}(4)	V_{CE}=2V, I_C=500mA	20	-	-	
	KN4401S	h_{FE}(5)		40	-	-	
Collector-Emitter Saturation Voltage *		$V_{CE(sat)}$ 1	I_C=150mA, I_B=15mA	-	-	0.4	V
		$V_{CE(sat)}$ 2	I_C=500mA, I_B=50mA	-	-	0.75	
Base-Emitter Saturation Voltage *		$V_{BE(sat)}$ 1	I_C=150mA, I_B=15mA	0.75	-	0.95	V
		$V_{BE(sat)}$ 2	I_C=500mA, I_B=50mA	-	-	1.2	
Transition Frequency	KN4400S	f_T	V_{CE}=10V, I_C=20mA, f=100MHz	200	-	-	MHz
	KN4401S			250	-	-	
Collector Output Capacitance		C_{ob}	V_{CB}=5V, I_E=0, f=1MHz	-	-	6.5	pF

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

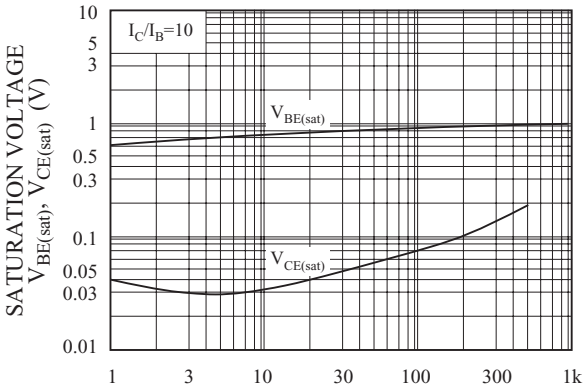
h_{FE} - I_C



C_{ob} - V_{CB}



$V_{BE(sat)}$, $V_{CE(sat)}$ - I_C



SAFE OPERATING AREA

