

GENERAL PURPOSE APPLICATION.
SWITCHING APPLICATION.

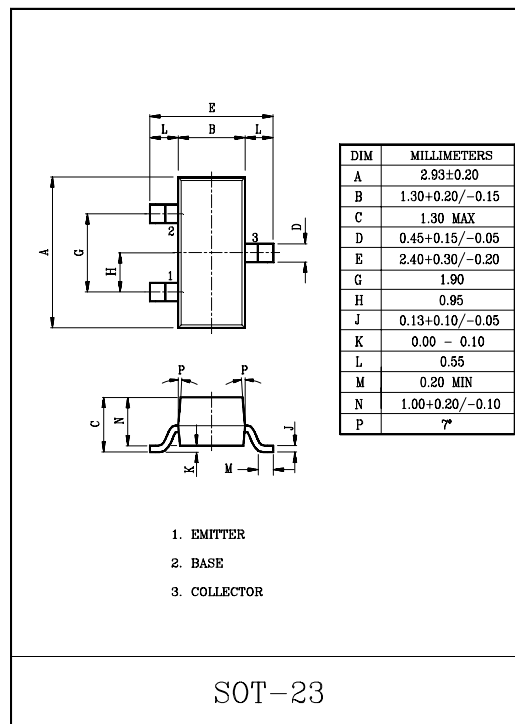
FEATURE

- Complementary to KN4402S/4403S.

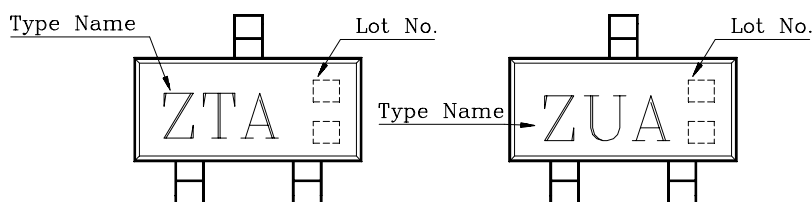
MAXIMUM RATINGS (Ta=25℃)

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 (Ta=25℃)	P_C *	350	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55~150	℃

P_C * : Package Mounted On 99.5% Alumina 10×8×0.6mm.



Marking



MARK SPEC

TYPE	MARK
KN4400S	ZTA
KN4401S	ZUA

KN4400S/4401S

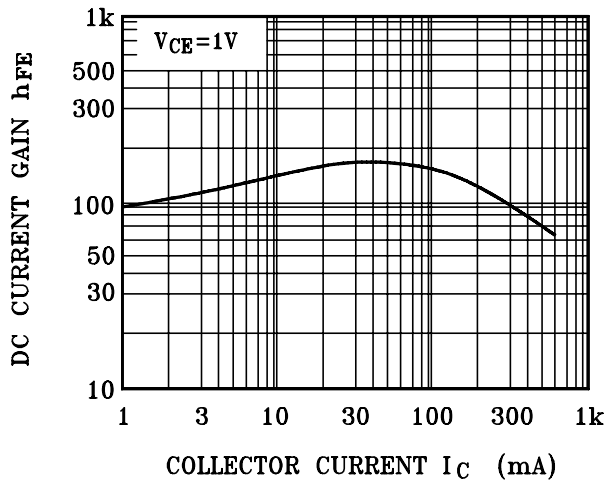
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CEX}	$V_{CE}=35V, V_{EB(OFF)}=0.4V$	–	–	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		$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60	–	–	V
Collector-Emitter Breakdown Voltage *		$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	40	–	–	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	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

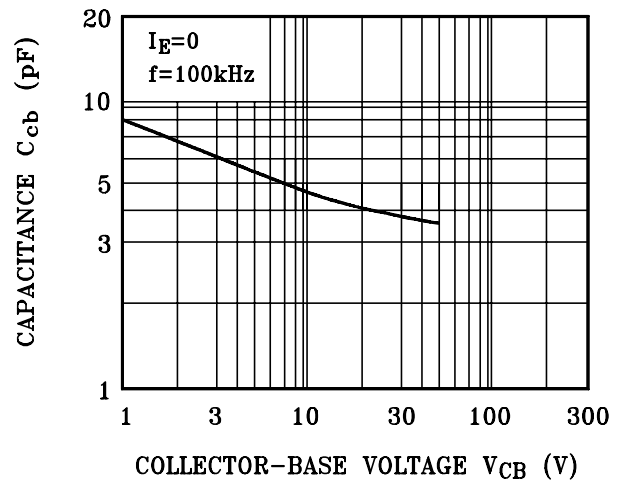
Note : *Pulse Test : Pulse Width $\leq 300\mu S$, Duty Cycle $\leq 2.0\%$.

KN4400S/4401S

$h_{FE} - I_C$



$C_{cb} - V_{CB}$



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

