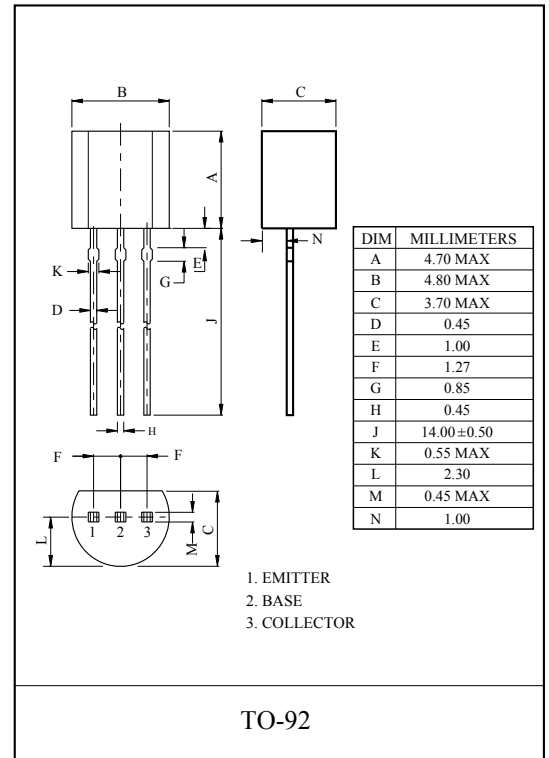


GENERAL PURPOSE APPLICATION.  
SWITCHING APPLICATION.

· Complementary to KN4402/4403.

#### MAXIMUM RATING (Ta=25°C)

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	$P_C$	625	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C



# KN4400/4401

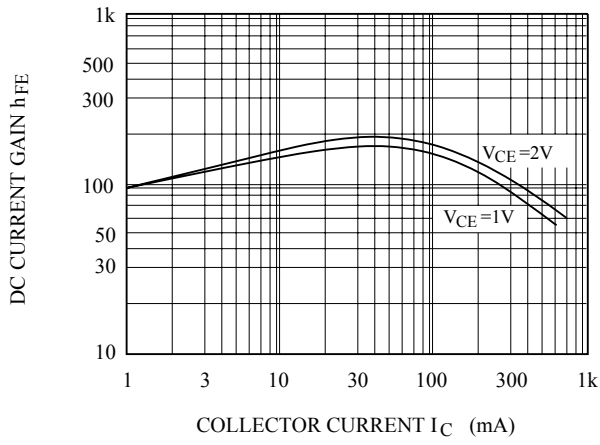
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

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 *		$V_{(BR)CEO}$	$I_E=1mA, I_B=0$	40	-	-	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	6	-	-	V
DC Current Gain *	KN4401	$h_{FE}(1)$	$V_{CE}=1V, I_C=0.1mA$	20	-	-	
	KN4400	$h_{FE}(1)$	$V_{CE}=1V, I_C=1mA$	20	-	-	
	KN4401	$h_{FE}(2)$		40	-	-	
	KN4400	$h_{FE}(2)$	$V_{CE}=1V, I_C=10mA$	40	-	-	
	KN4401	$h_{FE}(3)$		80	-	-	
	KN4400	$h_{FE}(3)$	$V_{CE}=1V, I_C=150mA$	50	-	150	
	KN4401	$h_{FE}(4)$		100	-	300	
	KN4400	$h_{FE}(4)$	$V_{CE}=2V, I_C=500mA$	20	-	-	
KN4401	$h_{FE}(5)$	40		-	-		
Collector-Emitter Saturation Voltage *		$V_{CE(sat)1}$	$I_C=150mA, V_{CE}=15mA$	-	-	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	KN4400	$f_T$	$I_C=20mA, V_{CE}=10V, f=100MHz$	200	-	-	MHz
	KN4401			250	-	-	
Collector Output Capacitance		$C_{ob}$	$V_{CB}=5V, I_E=0, f=1.0MHz$	-	-	6.5	pF

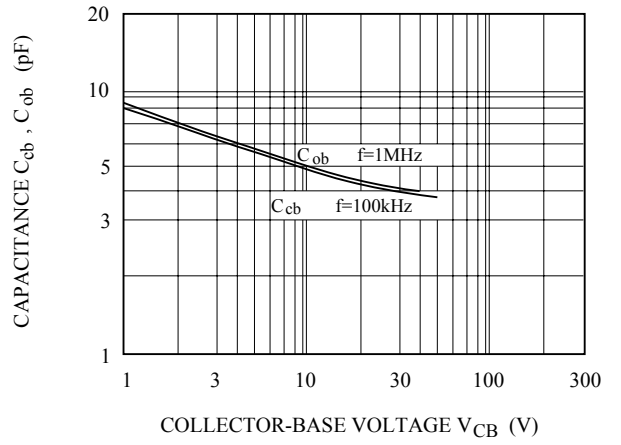
\* Pulse Test : Pulse Width  $\leq 300\mu S$ , Duty Cycle  $\leq 2\%$ .

# KN4400/4401

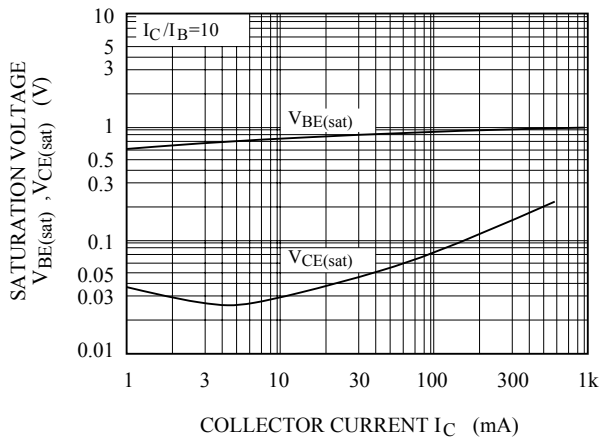
$h_{FE} - I_C$



$C_{cb}, C_{ob} - V_{CB}$



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



$P_C - T_a$

