KTC3003HV

TRIPLE DIFFUSED NPN TRANSISTOR

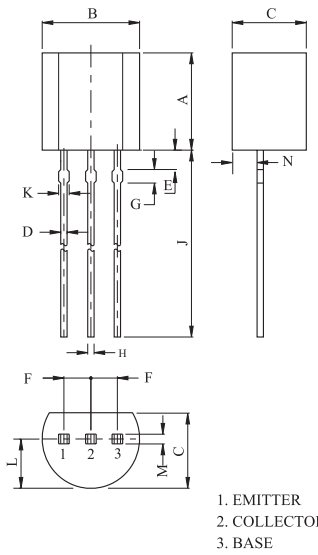
SWITCHING REGULATOR APPLICATION.
HIGH VOLTAGE AND HIGH SPEED
SWITCHING APPLICATION.

FEATURES

· Excellent Switching Times

: t_{on}=1.1㎲(Typ.), t_f=0.7㎲(Typ.), at I_C=1A

· High Collector Voltage : V_{CBO}=900V.



DIM	MILLIMETERS
A	4.70 MAX
B	4.80 MAX
C	3.70 MAX
D	0.45
E	1.00
F	1.27
G	0.85
H	0.45
J	14.00±0.50
K	0.55 MAX
L	2.30
M	0.45 MAX
N	1.00

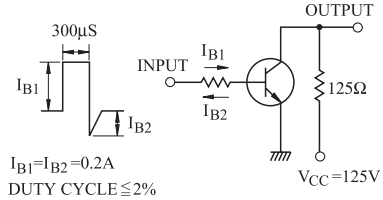
1. EMITTER
2. COLLECTOR
3. BASE

TO-92

MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	900	V
Collector-Emitter Voltage		V_{CEO}	530	V
Emitter-Base Voltage		V_{EBO}	9	V
Collector Current	DC	I_C	1.5	A
	Pulse	I_{CP}	3	
Base Current		I_B	0.75	A
Collector Power Dissipation		P_C	1.1	W
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55～150	℃

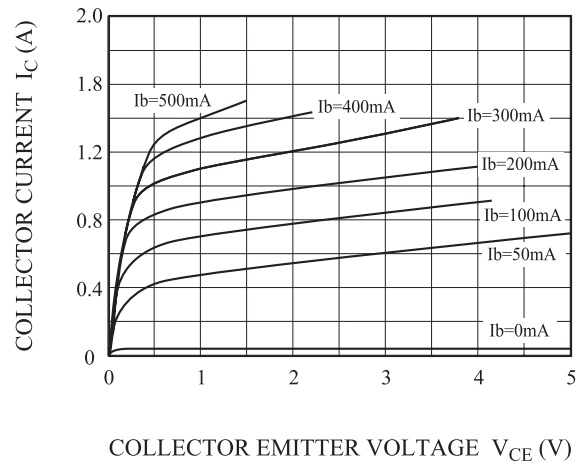
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Emitter Cut-off Current	I_{EBO}	V_{EB}=9V, I_C=0	-	-	10	㎂
DC Current Gain	h_{FE}(1)	V_{CE}=10V, I_C=10mA	15	-	40	
	*h_{FE}(2)	V_{CE}=10V, I_C=0.4A	20	-	40	
	h_{FE}(3)	V_{CE}=10V, I_C=1A	6	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=0.5A, I_B=0.1A	-	-	0.8	V
		I_C=1.5A, I_B=0.5A	-	-	2.5	
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=0.5A, I_B=0.1A	-	-	1	V
		I_C=1A, I_B=0.25A	-	-	1.2	
Collector Output Capacitance	C_{ob}	V_{CB}=10V, f=0.1MHz, I_E=0	-	21	-	pF
Transition Frequency	f_T	V_{CE}=10V, I_C=0.1A	4	-	-	MHz
Turn-On Time	t_{on}		-	1.1	-	㎲
Storage Time	t_{stg}		-	3.0	-	㎲
Fall Time	t_f		-	0.7	-	㎲

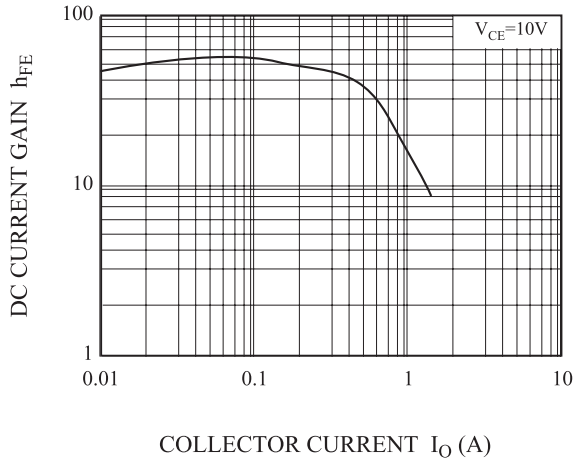
I_{B1}=I_{B2}=0.2A
DUTY CYCLE≦2%

*Note : h_{FE} Classification R:20～35, O:25～40

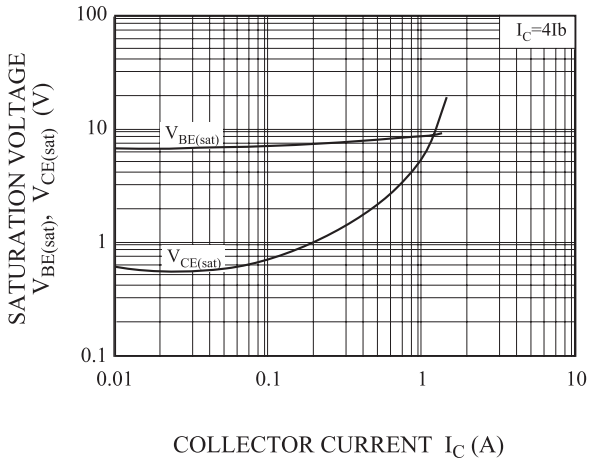
STATIC CHARACTERIC



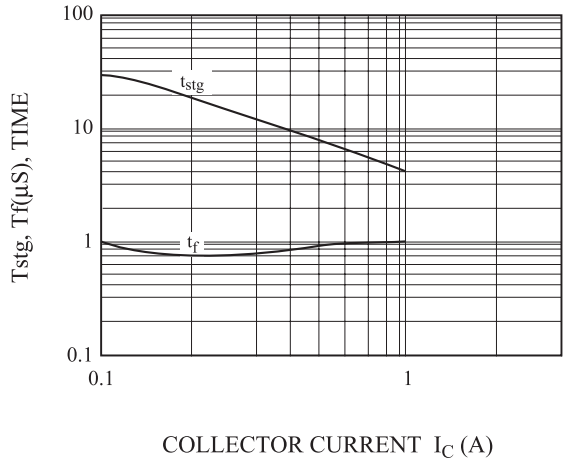
DC CURRENT GAIN



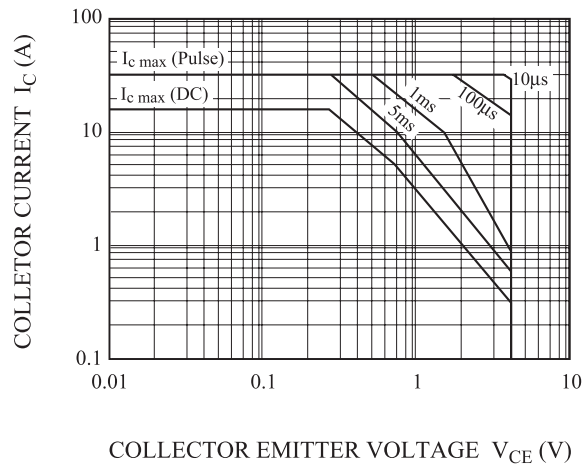
$V_{CE(sat)}$ vs. $V_{BE(sat)}$



SWITCHING TIME



SAFE OPERATING AREA



P_C - Ta