

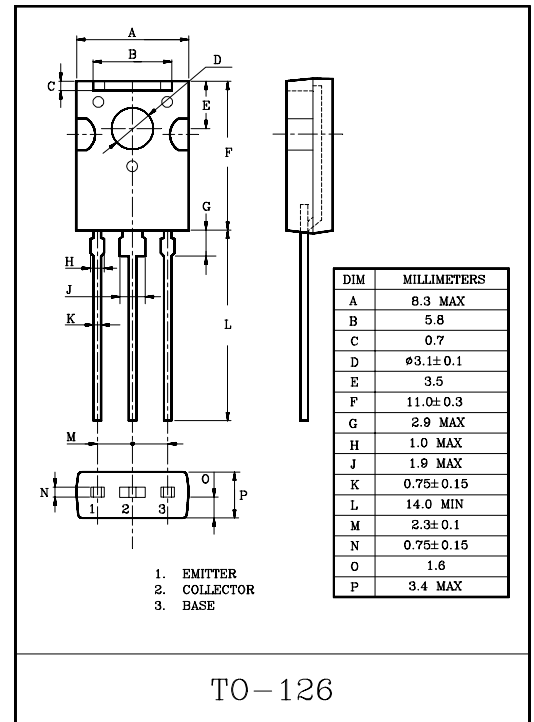
AUDIO AMPLIFIER, VOLTAGE REGULATOR  
DC-DC CONVERTER, RELAY DRIVER

### FEATURES

- Low Saturation Voltage.  
:  $V_{CE(sat)} \leq -0.8V$  ( $I_C = -2A, I_B = -0.2A$ )
- Excellent  $h_{FE}$  Linearity and high  $h_{FE}$ .  
:  $h_{FE}: 70 \sim 240$  ( $V_{CE} = -2V, I_C = -0.5A$ )

### MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-30	V
Collector-Emitter Voltage	$V_{CEO}$	-30	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	DC	$I_C$	-3 A
Emitter Current		$I_E$	-3 A
Collector Power Dissipation	$T_a = 25^\circ C$	$P_C$	1.5 W
	$T_c = 25^\circ C$	$P_C$	10 W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55 ~ 150	$^\circ C$



### ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -20V, I_E = 0$	-	-	-1.0	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -5.0V, I_C = 0$	-	-	-1.0	$\mu A$
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -2.0V, I_C = -0.5A$	70	-	240	
	$h_{FE(2)}$	$V_{CE} = -2.0V, I_C = -2.5A$	25	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -2.0A, I_B = -0.2A$	-	-0.3	-0.8	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C = -2A, I_B = -0.5A$	-	-0.75	-1.0	V
Gain Bandwidth Product	$f_T$	$V_{CE} = -2V, I_C = -0.5A$	-	100	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	40	-	pF

Note :  $h_{FE(1)}$  Classification O:70~140 , Y:120~240

# KTA1705

