

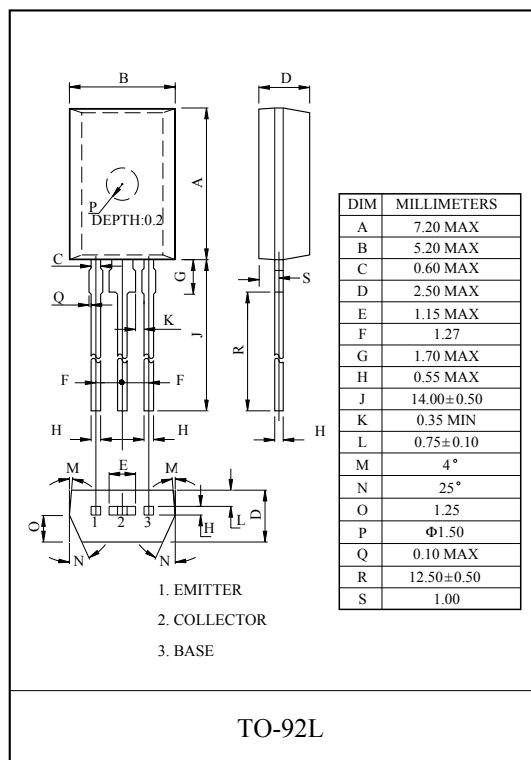
POWER AMPLIFIER APPLICATIONS.  
POWER SWITCHING APPLICATIONS.

## FEATURES

- Low Collector Saturation Voltage  
:  $V_{CE(sat)} = -0.5V(\text{Max.})$  ( $I_C = -1A$ )
- High Speed Switching Time :  $t_{stg} = 1.0\mu S(\text{Typ.})$
- Complementary to KTC3209.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	-50	V
Collector-Emitter Voltage	$V_{CEO}$	-50	V
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-2	A
Collector Power Dissipation	$P_C$	1	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		$I_{CBO}$	$V_{CB} = -50V, I_E = 0$	-	-	-0.1	$\mu A$
Emitter Cut-off Current		$I_{EBO}$	$V_{EB} = -5V, I_C = 0$	-	-	-0.1	$\mu A$
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-50	-	-	V
DC Current Gain		$h_{FE}(1)(\text{Note})$	$V_{CE} = -2V, I_C = -0.5A$	70	-	240	
		$h_{FE}(2)$	$V_{CE} = -2V, I_C = -1.5A$	40	-	-	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = -1A, I_B = -0.05A$	-	-	-0.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C = -1A, I_B = -0.05A$	-	-	-1.2	V
Transition Frequency		$f_T$	$V_{CE} = -2V, I_C = -0.5A$	-	100	-	MHz
Collector Output Capacitance		$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	40	-	pF
Switching Time	Turn-on Time	$t_{on}$	<p><math>-I_{B1} = I_{B2} = 0.05A</math> DUTY CYCLE <math>\leq 1\%</math> <math>V_{CC} = -30V</math></p>	-	0.1	-	$\mu S$
	Storage Time	$t_{stg}$		-	1.0	-	
	Fall Time	$t_f$		-	0.1	-	

Note :  $h_{FE}$  Classification 0:70 ~ 140, Y:120 ~ 240

## STATIC CHARACTERISTICS

