

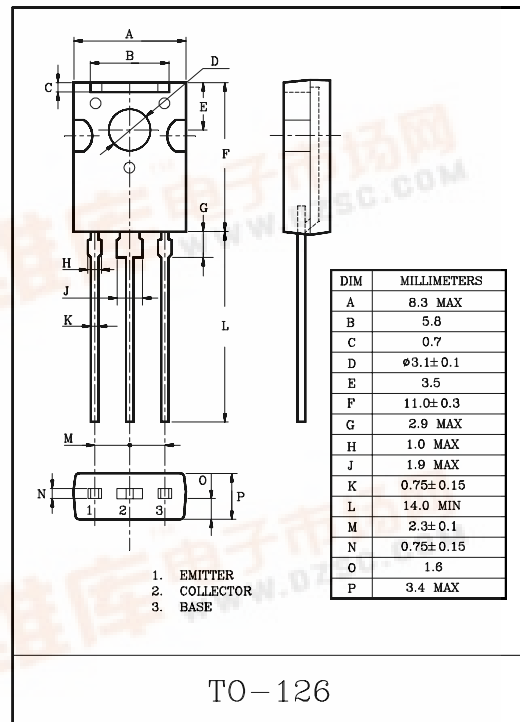
LOW FREQUENCY POWER AMP,
MEDIUM SPEED SWITCHING APPLICATIONS

FEATURES

- High breakdown voltage V_{CE0} 120V, high current 1A.
- Low saturation voltage and good linearity of h_{FE} .

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	-120	V
Collector-Emitter Voltage		V_{CEO}	-120	V
Emitter-Base Voltage		V_{EBO}	-5	V
Collector Current		I_C	-1	A
		I_{CP}	-2	
Collector Power Dissipation	$T_a=25^{\circ}C$	P_C	1.5	W
	$T_C=25^{\circ}C$		8	
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 of Current		I_{CBO}	$V_{CB}=-50V, I_E=0$	-	-	-1	μA
Emitter Cut of Current		I_{EBO}	$V_{EB}=-4V, I_C=0$	-	-	-1	μA
Collector-Base Breakdown Voltage		$V_{(BR)CBO}$	$I_C=-10\mu A$	-120	-	-	V
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C=-1mA$	-120	-	-	V
Emitter-Base Breakdown Voltage		$V_{(BR)EBO}$	$I_E=-10\mu A$	-5	-	-	V
DC Current Gain	$h_{FE}(1)$ Note		$V_{CE}=-5V, I_C=-50mA$	100	-	320	
	$h_{FE}(2)$		$V_{CE}=-5V, I_C=-500mA$	20	-	-	
Gain Bandwidth Product		f_T	$V_{CE}=-10V, I_C=-50mA$	-	110	-	MHz
Output Capacitance		C_{ob}	$V_{CB}=-10V, f=1MHz$	-	30	-	pF
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=-500mA, I_B=-50mA$	-	-0.15	-0.4	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C=-500mA, I_B=-50mA$	-	-0.85	-1.2	V
Switching Time	Turn-on Time	t_{on}	<p>$V_{CB}=-12V$ $I_C=10I_{B1}=-10I_{B2}=500mA$</p>	-	80	-	nS
	Turn-off Time	t_{off}		-	100	-	
	Storage Time	t_{stg}		-	600	-	



KTB631K

