

TOSHIBA (DISCRETE/OPTO)

SILICON NPN TRIPLE DIFFUSED TYPE

2SD880

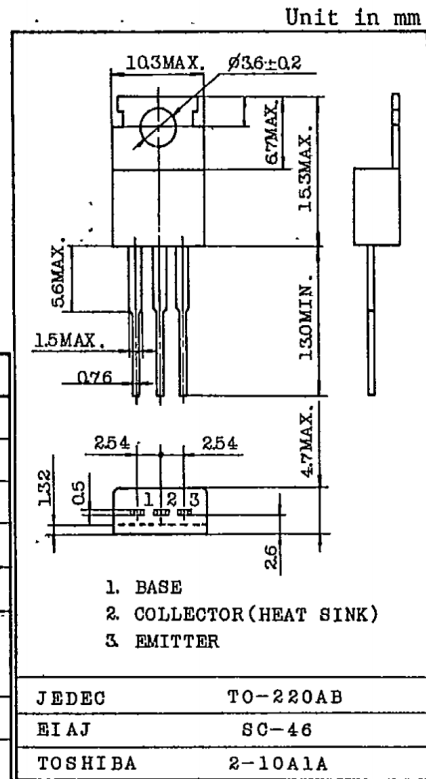
AUDIO FREQUENCY POWER AMPLIFIER APPLICATIONS.

FEATURES :

- High DC Current Gain
: $h_{FE}=300(\text{Max.})(V_{CE}=5V, I_C=0.5A)$
- Low Saturation Voltage
: $V_{CE}(\text{sat})=1.0V(\text{Max.})(I_C=3A, I_B=0.3A)$
- High Power Dissipation : $P_C=30W (T_c=25^\circ C)$
- Complementary to 2SB834.

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	60	V
Collector-Emitter Voltage		V_{CEO}	60	V
Emitter-Base Voltage		V_{EBO}	7	V
Collector Current		I_C	3	A
Base Current		I_B	0.5	A
Collector Power Dissipation	$T_a=25^\circ C$	T_j	1.5	W
	$T_c=25^\circ C$		30	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	-55~150	$^\circ C$



Mounting kit No. AC75
Weight : 1.9g

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

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=60V, I_E=0$	-	-	100	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=7V, I_C=0$	-	-	100	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C=50mA, I_B=0$	60	-	-	V
DC Current Gain		h_{FE}	$V_{CE}=5V, I_C=0.5A$ (Note)	60	-	300	
Collector Emitter Saturation Voltage		$V_{CE}(\text{sat})$	$I_C=3A, I_B=0.3A$	-	0.25	1.0	V
Base-Emitter Voltage		V_{BE}	$V_{CE}=5V, I_C=0.5A$	-	0.7	1.0	V
Transition Frequency		f_T	$V_{CE}=5V, I_C=0.5A$	-	3.0	-	MHz
Collector Output Capacitance		C_{cb}	$V_{CB}=10V, I_E=0, f=1MHz$	-	70	-	pF
Switching Time	Turn-on Time	t_{on}	<p>$I_{B1} = -I_{B2} = 0.2A$ DUTY CYCLE < 1%</p>	-	0.8	-	μs
	Storage Time	t_{stg}		-	1.5	-	
	Fall Time	t_f		-	0.8	-	

Note: h_{FE} Classification 60 ~ 120, Y : 100 ~ 200, GR: 150 ~ 300.

2SD880

TOSHIBA (DISCRETE/OPTO)

2SD880

