

# 2SD845

SILICON NPN TRIPLE DIFFUSED TYPE

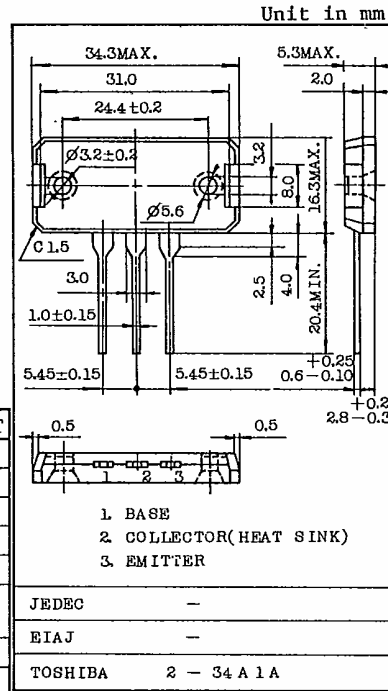
POWER AMPLIFIER APPLICATION,

FEATURES:

- High Breakdown Voltage :  $V_{CEO}=150V$  (Min.)
- High Transition Frequency :  $f_T=20MHz$  (Typ.)
- Complementary to 2SB755.
- Recommended for 80% High-Fidelity Audio Frequency Amplifier Output Stage.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	150	V
Collector-Emitter Voltage	$V_{CEO}$	150	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	12	A
Emitter Current	$I_E$	-12	A
Collector Power Dissipation ( $T_c=25^\circ C$ )	$P_C$	120	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	$I_{CBO}$	$V_{CB}=150V, I_E=0$	-	-	50	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	50	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=0.1A, I_B=0$	150	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=10mA, I_C=0$	5	-	-	V
DC Current Gain	$h_{FE}$ (Note)	$V_{CE}=5V, I_C=1A$	55	-	160	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A, I_B=0.5A$	-	-	2.0	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=5V, I_C=5A$	-	-	1.5	V
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=1A$	-	20	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	200	-	pF

Note :  $h_{FE}$  Classification R : 55~110, O : 80~160

TOSHIBA CORPORATION

