2SD845

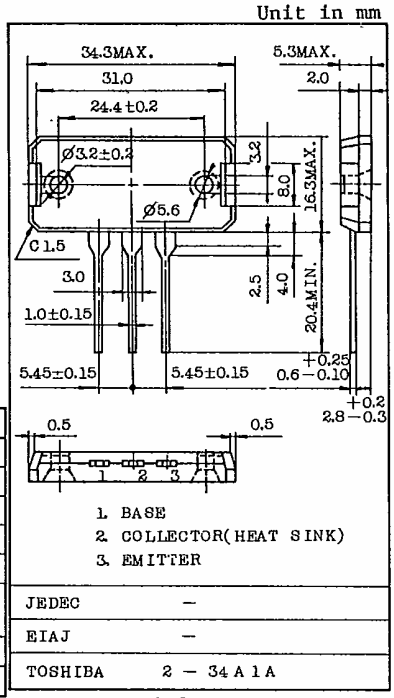
SILICON NPN TRIPLE DIFFUSED TYPE

Unit in mm

POWER AMPLIFIER APPLICATION,

FEATURES:

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



JEDEC	—
EIAJ	—
TOSHIBA	2 − 34A1A

Weight : 10.8g

MAXIMUM RATINGS (Ta=25°C)

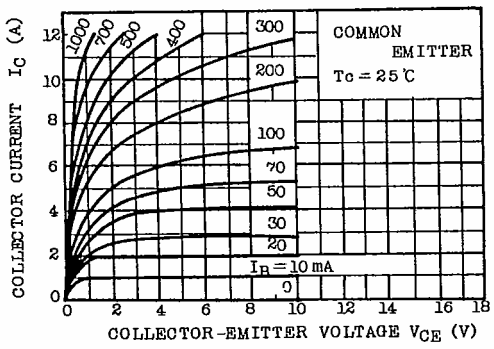
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	150	V
Collector-Emitter Voltage	V_{CEO}	150	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	12	A
Emitter Current	I_E	-12	A
Collector Power Dissipation (Tc=25°C)	P_C	120	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55∿150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C)

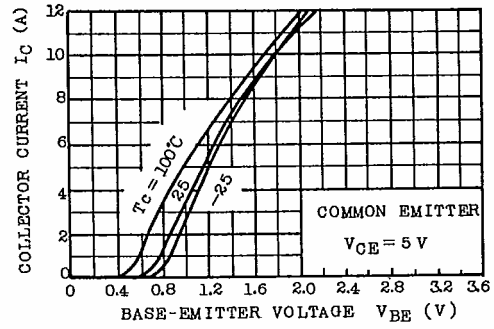
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB}=150V, I_E=0	-	-	50	μA
Emitter Cut-off Current	I_{EBO}	V_{EB}=5V, I_C=0	-	-	50	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=0.1A, I_B=0	150	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=10mA, I_E=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

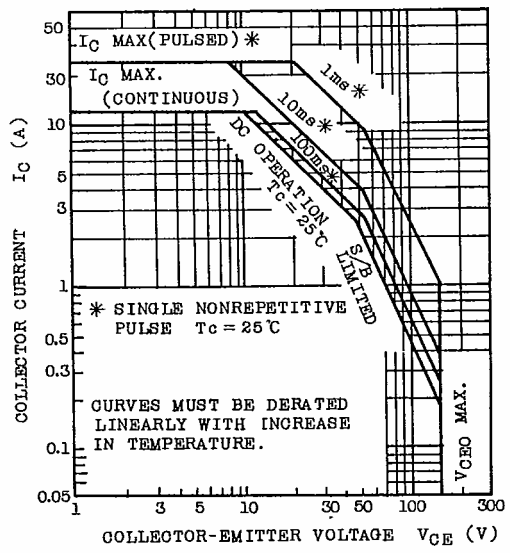
$I_C - V_{CE}$



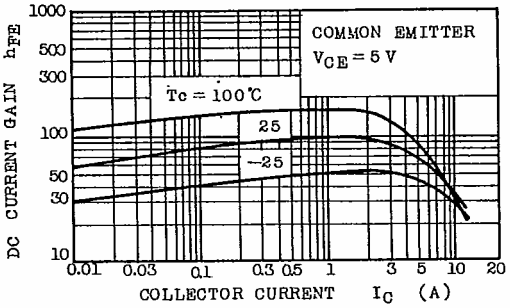
$I_C - V_{BE}$



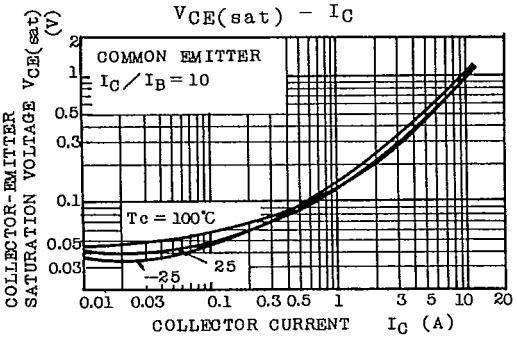
SAFE OPERATING AREA



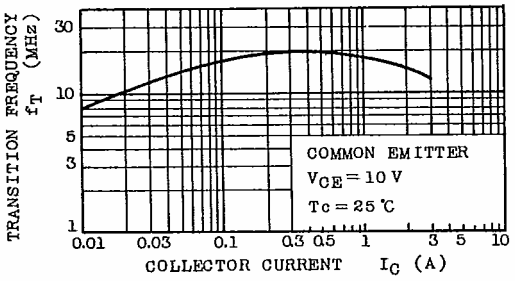
$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



$f_T - I_C$



$P_C - Ta$