

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07567

DT-33-13

**2SC2565**

SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

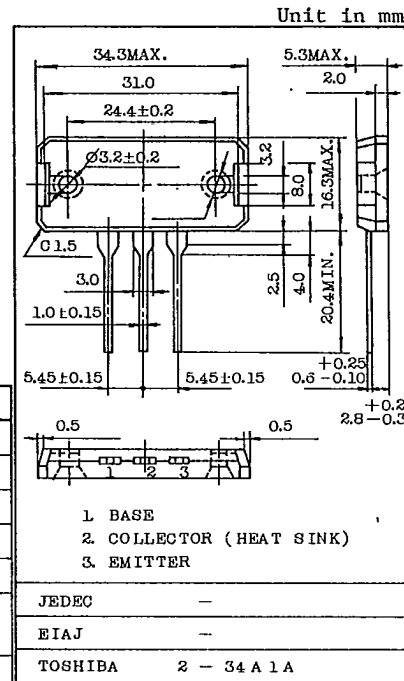
## POWER AMPLIFIER APPLICATIONS.

## FEATURES:

- High Breakdown Voltage :  $V_{CEO}=160V$
- High Transition Frequency :  $f_T=80MHz$  (Typ.)
- Complementary to 2SA1095.
- Recommended for 100W High-Fidelity Audio Frequency Amplifier Output Stage.

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

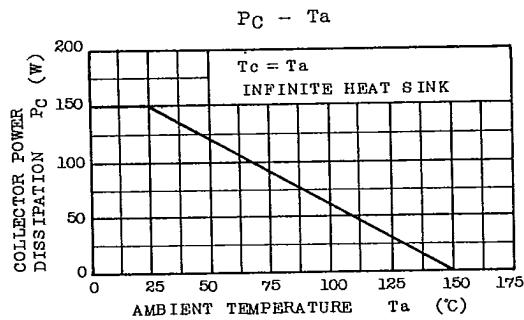
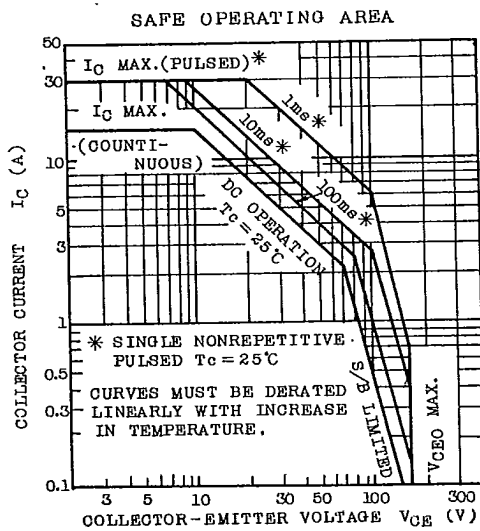
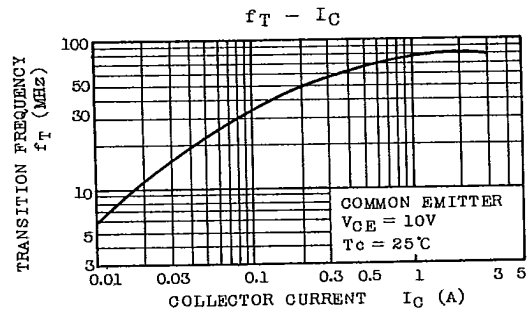
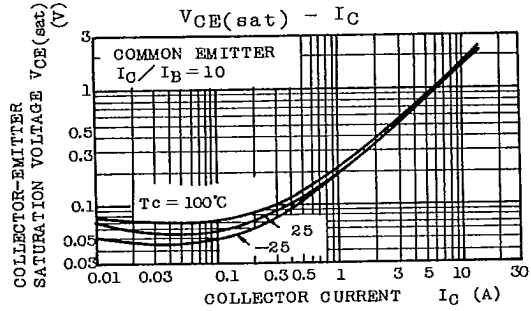
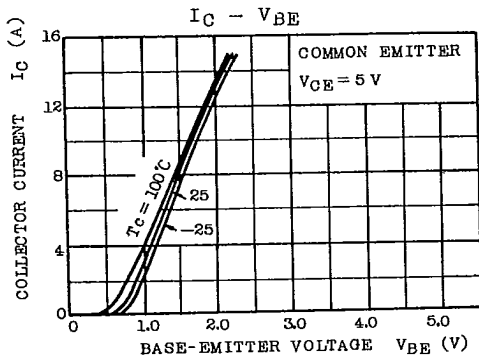
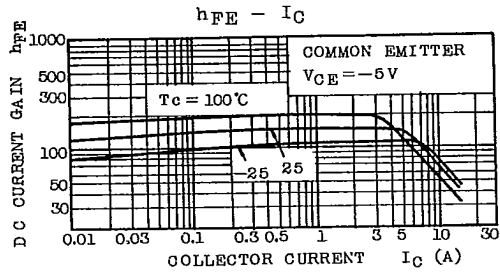
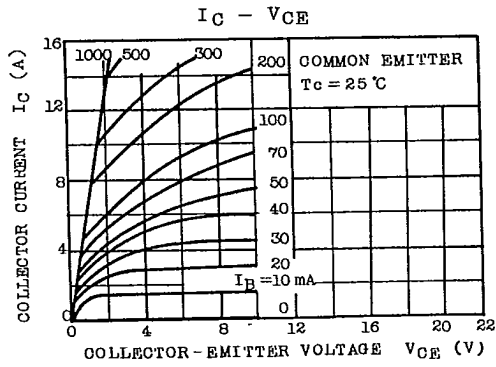
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	160	V
Collector-Emitter Voltage	$V_{CEO}$	160	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	15	A
Emitter Current	$I_E$	-15	A
Collector Power Dissipation ( $T_c=25^\circ C$ )	$P_C$	150	W
Junction Temperature	$T_j$	150	$^\circ C$
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	$I_{CBO}$	$V_{CB}=160V, I_E=0$	-	-	50	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	-	-	50	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=0.1A, I_B=0$	160	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E=0.01A, I_C=0$	5	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=5V, I_C=1A$	55	-	240	
	$h_{FE(2)}$	$V_{CE}=5V, I_C=5A$	40	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A, I_B=0.5A$	-	-	2.0	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=5V, I_C=5A$	-	-	2.0	V
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=1A$	-	80	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	200	-	pF

Note :  $h_{FE(1)}$  Classification R : 55~110, O : 80~160, Y : 120~240

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