

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07648 07-33-13

SILICON NPN TRIPLE DIFFUSED TYPE

2SC3181

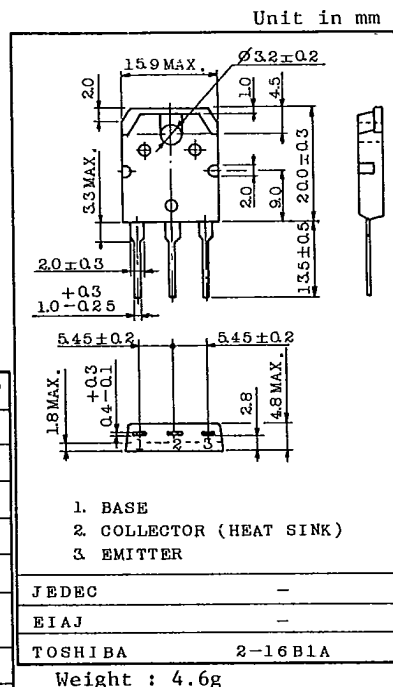
POWER AMPLIFIER APPLICATIONS.

FEATURES:

- Complementary to 2SA1264
- Recommend for 55W High Fidelity Audio Frequency Amplifier Output Stage.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	120	V
Collector-Emitter Voltage	V_{CE0}	120	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	8	A
Base Current	I_B	0.8	A
Collector Power Dissipation ($T_c=25^\circ\text{C}$)	P_C	80	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CB0}	$V_{CB}=120\text{V}, I_E=0$	-	-	5.0	μA
Emitter Cut-off Current	I_{EB0}	$V_{EB}=5\text{V}, I_C=0$	-	-	5.0	μA
Collector-Emitter Breakdown Voltage	$V_{(BR)CE0}$	$I_C=50\text{mA}, I_B=0$	120	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE}=5\text{V}, I_C=1\text{A}$	55	-	160	
	$h_{FE(2)}$	$V_{CE}=5\text{V}, I_C=4\text{A}$	35	75	-	
Collector Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=6\text{A}, I_B=0.6\text{A}$	-	0.35	2.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=5\text{V}, I_C=4\text{A}$	-	0.95	1.5	V
Transition Frequency	f_T	$V_{CE}=5\text{V}, I_C=1\text{A}$	-	30	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$	-	190	-	pF

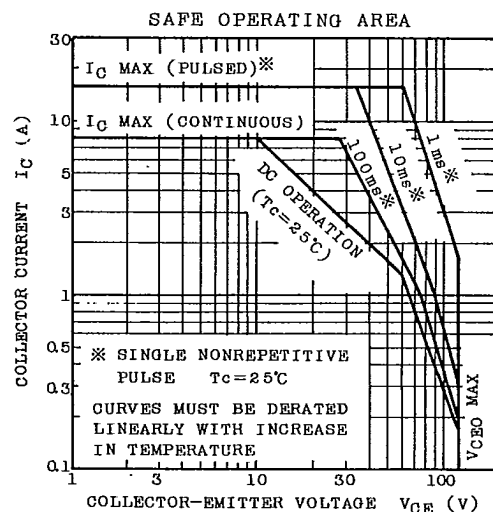
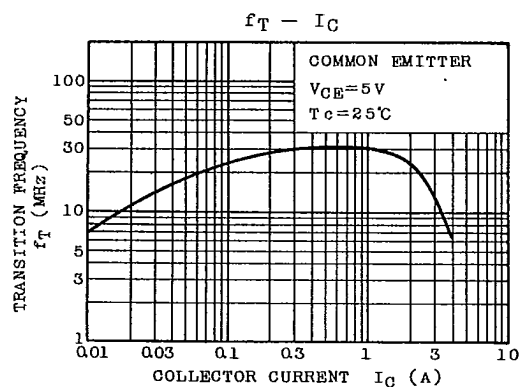
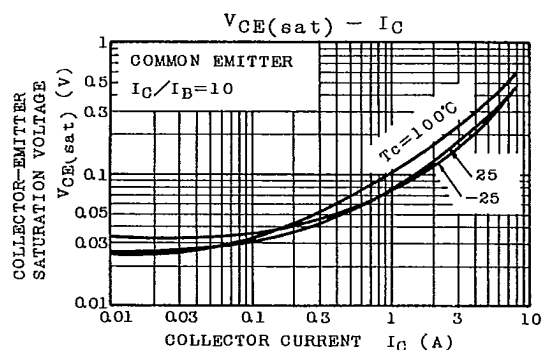
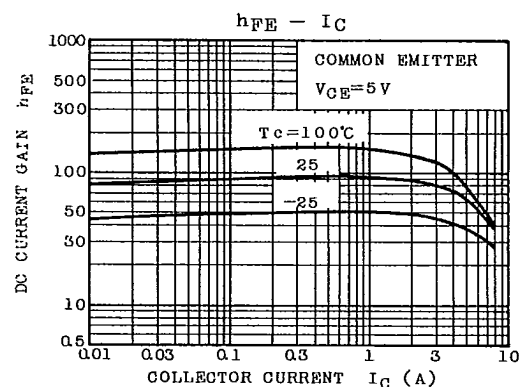
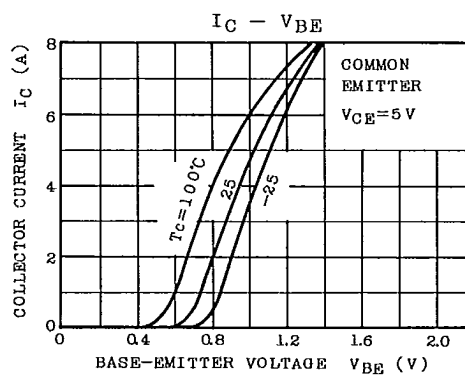
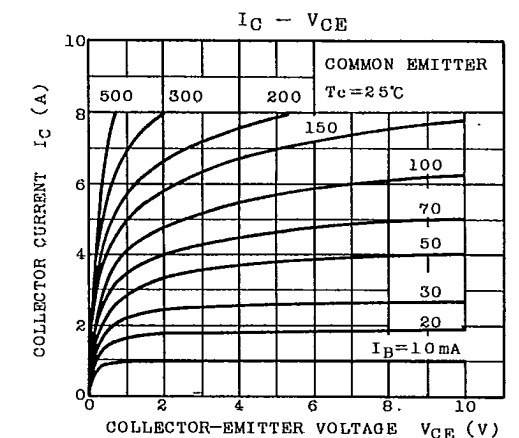
Note : $h_{FE(1)}$ Classification, R : 55~110 0 : 80~160

TOSHIBA CORPORATION

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07649

D T-33-13

2SC3181

TOSHIBA CORPORATION