2SC2564

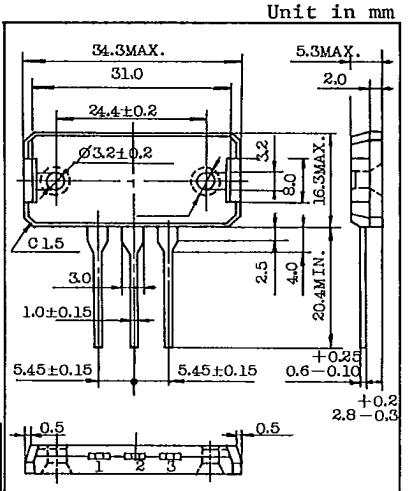
SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

POWER AMPLIFIER APPLICATIONS.

FEATURES:

- High Breakdown Voltage : V_{CEO}=140V
- High Transition Frequency : f_T=90MHz (Typ.)
- Complementary to 2SA1094.
- Recommended for 80W High-Fidelity Audio Frequency Amplifier Output Stage.

Unit in mm



1. BASE
2. COLLECTOR(HEAT SINK)
3. EMITTER

JEDEC	—
EIAJ	—
TOSHIBA	2 − 34A1A

Weight : 10.8g

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	140	V
Collector-Emitter Voltage	V_{CEO}	140	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}=140V, 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	140	-	-	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	30	-	-	
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	-	90	-	MHz
Collector Output Capacitance	C_{ob}	V_{CB}=10V, I_E=0, f=1MHz	-	130	-	pF

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

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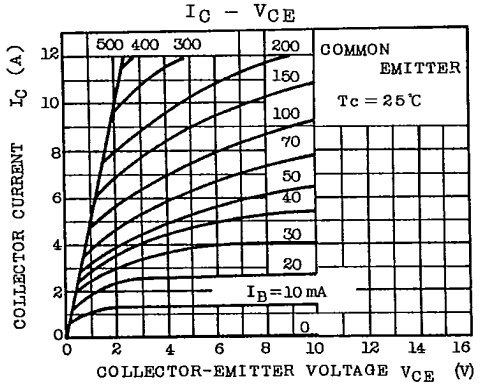
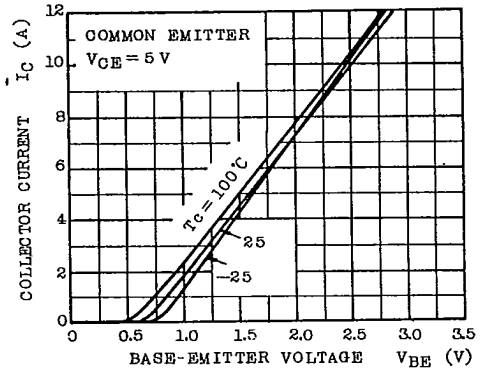
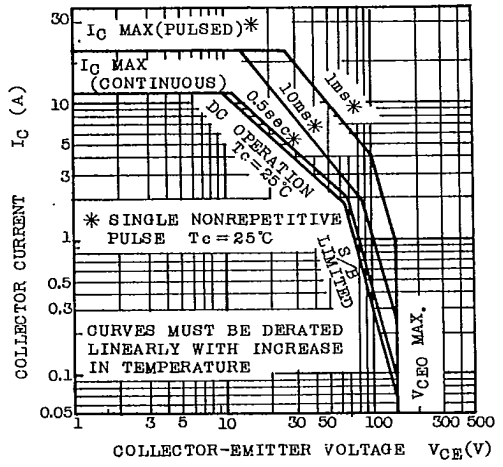
$I_C - V_{CE}$



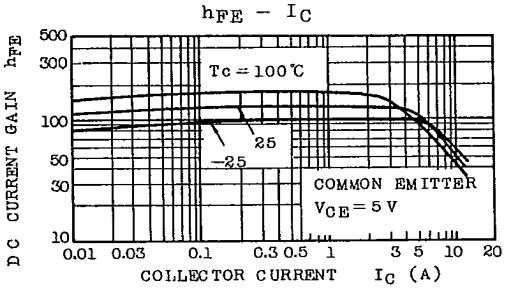
$I_C - V_{BE}$



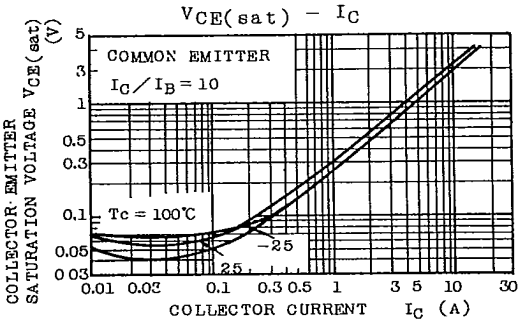
SAFE OPERATING AREA



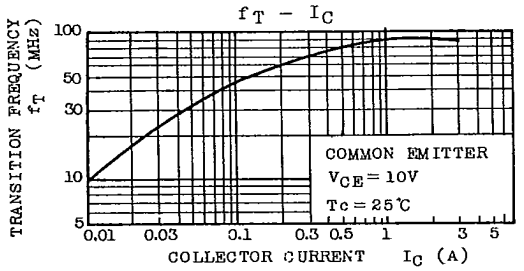
$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



$f_T - I_C$



$P_C - Ta$