

9097250 TOSHIBA (DISCRETE/OPTO)

56C 07236

D7-33-17

# 2SA814

# 2SA815

SILICON PNP EPITAXIAL BASE MESA TYPE

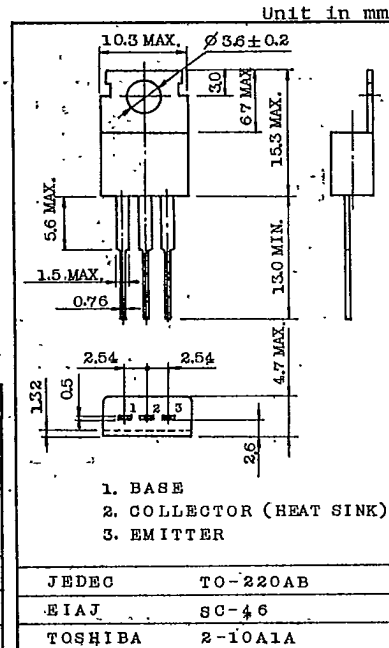
MEDIUM POWER AMPLIFIER APPLICATIONS.  
DRIVER STAGE AMPLIFIER APPLICATIONS.

## FEATURES:

- High Breakdown Voltage:  $V_{CE0} = -120V$  (2SA814)  
:  $V_{CE0} = -100V$  (2SA815)
- Complementary to 2SC1624 and 2SC1625.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	2SA814	-120	V
	2SA815	-100	
Collector-Emitter Voltage	2SA814	-120	V
	2SA815	-100	
Emitter-Base Voltage	$V_{EBO}$	-5	V
Collector Current	$I_C$	-1	A
Emitter Current	$I_E$	1	A
Collector Power Dissipation ( $T_c = 25^\circ C$ )	$P_c$	15	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$



Mounting Kit No. AC75  
Weight : 1.9g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = -50V, I_E = 0$	-	-	-1.0	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$	-	-	-1.0	$\mu A$
Collector-Emitter Breakdown Voltage	2SA814	$I_C = -10mA, I_B = 0$	-120	-	-	V
	2SA815		-100	-	-	
Emitter-Base Breakdown Voltage	$V_{(BE)EBO}$	$I_E = -1mA, I_C = 0$	-5	-	-	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -5V, I_C = -150mA$	70	-	240	
	$h_{FE(2)}$	$V_{CE} = -5V, I_C = -500mA$	40	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$	-	-	-0.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = -5V, I_C = -500mA$	-	-	-1.0	V
Transition Frequency	$f_T$	$V_{CE} = -5V, I_C = -150mA$	10	30	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	-	30	-	pF

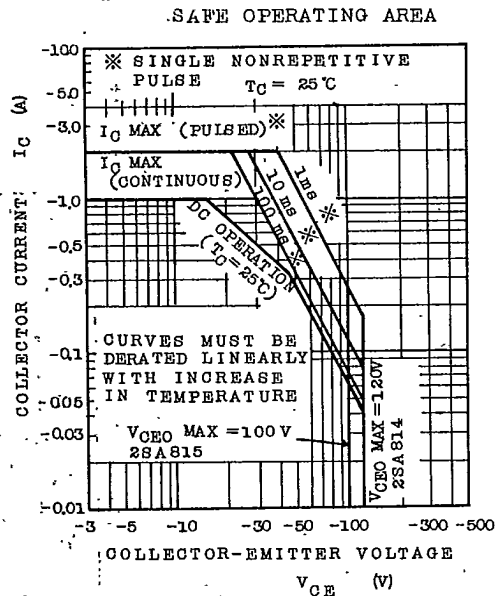
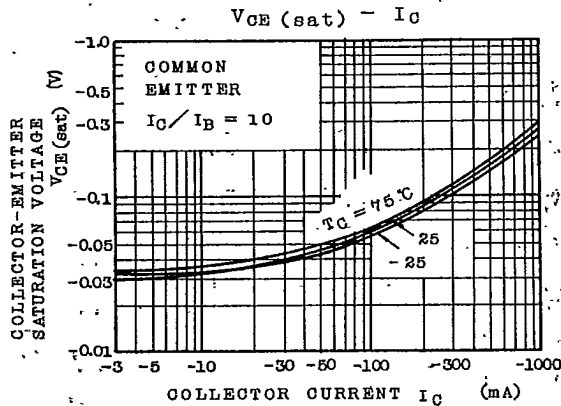
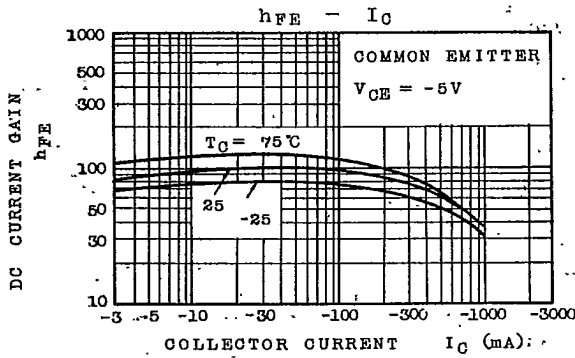
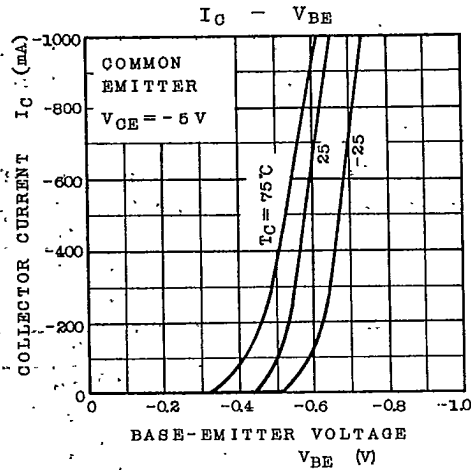
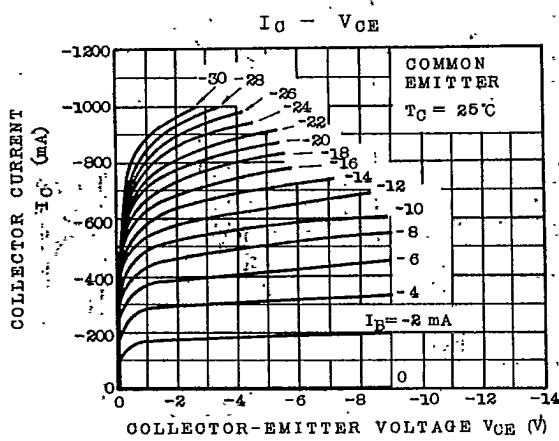
Note:  $h_{FE(1)}$  Classification 0 : 70~140, Y : 120~240

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