

# SILICON NPN PLANAR TYPE

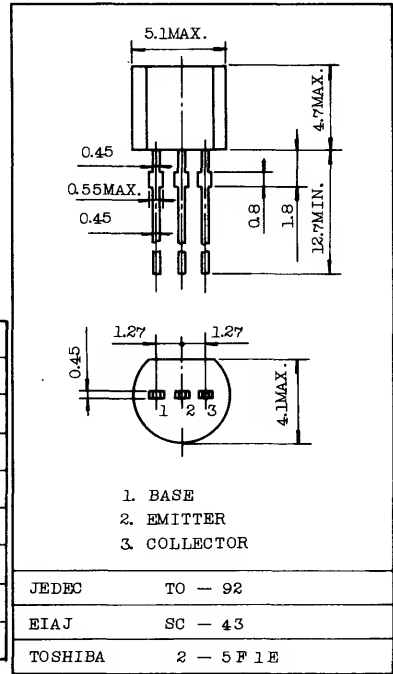
# 2SC2215

TV 1ST, 2ND PICTURE IF AMPLIFIER APPLICATIONS.

**FEATURES:**

- High Gain :  $G_{pe}=35dB$  (Typ.) ( $f=45MHz$ )
- Excellent Forward AGC Characteristics.

Unit in mm



**MAXIMUM RATINGS (Ta=25°C)**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CB0}$	40	V
Collector-Emitter Voltage	$V_{CE0}$	40	V
Emitter-Base Voltage	$V_{EB0}$	4	V
Collector Current	$I_C$	50	mA
Emitter Current	$I_E$	-50	mA
Collector Power Dissipation	$P_C$	250	mW
Junction Temperature	$T_j$	125	°C
Storage Temperature Range	$T_{stg}$	-55~125	°C

Weight : 0.21g

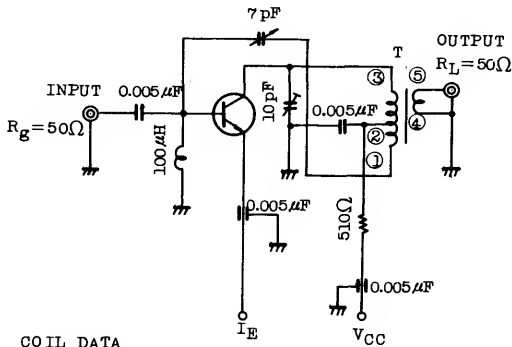
**ELECTRICAL CHARACTERISTICS (Ta=25°C)**

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=40V, I_E=0$	-	-	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=3V, I_C=0$	-	-	0.1	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=3mA, I_B=0$	40	-	-	V
DC Current Gain	$h_{FE}$	$V_{CE}=10V, I_C=4mA$	30	-	-	
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=4mA$	400	-	-	MHz
Collector-Base Time Constant	$C_C \cdot r_{bb}'$	$V_{CB}=10V, I_E=-1mA, f=30MHz$	-	-	30	ps
Reverse Transfer Capacitance	$C_{re}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	-	1.2	pF
Power Gain (Fig. 1)	$G_{pe}$	$V_{CC}=12V, I_C=4mA, f=45MHz$	32	-	40	dB
AGC Current (Note 1,2)	$I_{AGC}$	$V_{CC}=12V, f=45MHz$	7.2	-	10.8	mA

Note 1 :  $I_{AGC}$  Classification BL : 7.2~8.8, V : 8.2~10.1, W : 8.9~10.8

Note 2 : Measured by circuit shown in Fig 1, when power gain is reduced 30dB compared with that of  $I_C$  at 4mA.

Fig.1  $G_{pe}$  AND  $I_{AGC}$  CHARACTERISTICS  
TEST CIRCUIT ( $f=4.5\text{MHz}$ )



COIL DATA  
0.2mm $\phi$  Cu WIRE  
L=1.2 $\mu$ H WITH M-5 CORE  
T : ①-② 3.0T  
      ②-③ 8.0T  
      ④-⑤ 1.0T

## STATIC CHARACTERISTICS

