

TOSHIBA TRANSISTOR SILOCON PNP EPITAXIAL TYPE (PCT PROCESS)

# 2SC1959

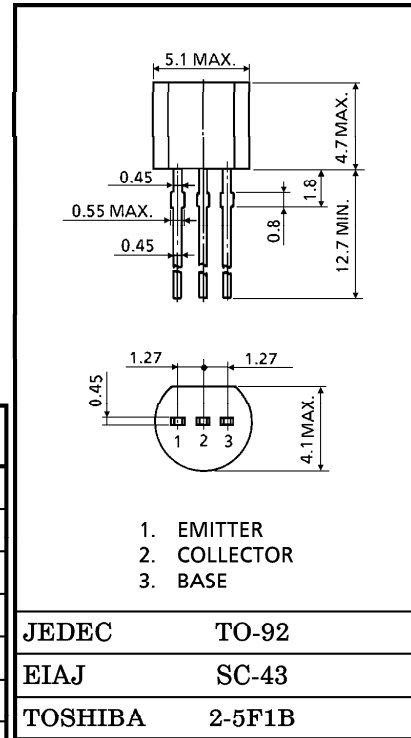
AUDIO FREQUENCY LOW POWER AMPLIFIER APPLICATIONS  
 DRIVER STAGE AMPLIFIER APPLICATIONS  
 SWITCHING APPLICATIONS

Unit in mm

- Excellent  $h_{FE}$  Linearity  
 :  $h_{FE}(2) = 25$  (Min.) :  $V_{CE} = 6V, I_C = 400mA$
- 1 Watt Amplifier Applications.
- Complementary to 2SA562TM.

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	35	V
Collector-Emitter Voltage	$V_{CEO}$	30	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	500	mA
Base Current	$I_B$	100	mA
Collector Power Dissipation	$P_C$	500	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$



JEDEC	TO-92
EIAJ	SC-43
TOSHIBA	2-5F1B

Weight : 0.21g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 35V, I_E = 0$	—	—	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	—	—	0.1	$\mu A$
DC Current Gain	$h_{FE}(1)$ (Note)	$V_{CE} = 1V, I_C = 100mA$	70	—	400	
	$h_{FE}(2)$ (Note)	$V_{CE} = 6V, I_C = 400mA$	25	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 100mA, I_B = 10mA$	—	0.1	0.25	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 1V, I_C = 100mA$	—	0.8	1.0	V
Transition Frequency	$f_T$	$V_{CE} = 6V, I_C = 20mA$	—	300	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 6V, I_E = 0, f = 1MHz$	—	7	—	pF

Note :  $h_{FE}(1)$  Classification O : 70~140, Y : 120~240, GR : 200~400  
 $h_{FE}(2)$  Classification O : 25 (Min.), Y : 40 (Min.)

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