

**TOSHIBA**

**2SC2705**

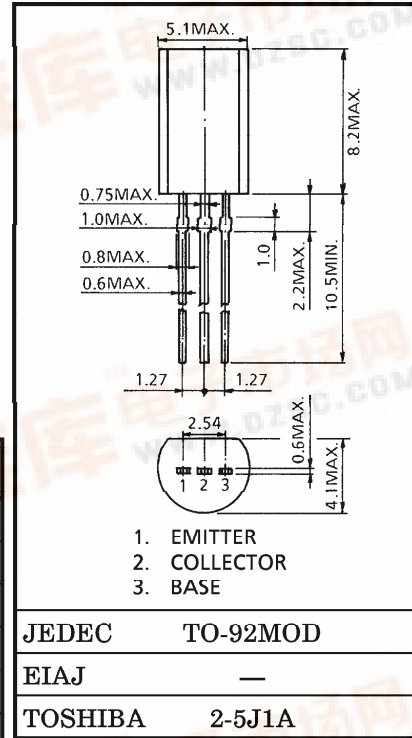
TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

# 2SC2705

AUDIO FREQUENCY AMPLIFIER APPLICATIONS.

Unit in mm

- Complementary to 2SA1145.
- Small Collector Output Capacitance :  $C_{ob}=1.8pF$  (Typ.)
- High Transition Frequency :  $f_T=200MHz$  (Typ.)



Weight : 0.36g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	150	V
Collector-Emitter Voltage	$V_{CEO}$	150	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	50	mA
Base Current	$I_B$	5	mA
Collector Power Dissipation	$P_C$	800	mA
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	$I_{CBO}$	$V_{CB}=150V, I_E=0$	—	—	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=5V, I_C=0$	—	—	0.1	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	150	—	—	V
DC Current Gain	$h_{FE}$ (Note)	$V_{CE}=5V, I_C=10mA$	80	—	240	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=10mA, I_B=1mA$	—	—	1.0	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE}=5V, I_C=10mA$	—	—	0.8	V
Transition Frequency	$f_T$	$V_{CE}=5V, I_C=10mA$	—	200	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	—	1.8	—	pF

Note :  $h_{FE}$  Classification O : 80 ~ 160, Y : 120 ~ 240

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