

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

# 2SC4209

DRIVER STAGE AMPLIFIER APPLICATIONS

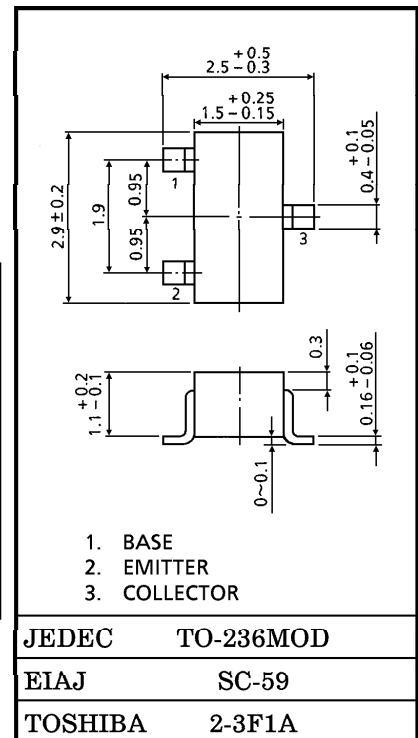
VOLTAGE AMPLIFIER APPLICATIONS

- Complementary to 2SA1620

MAXIMUM RATINGS (Ta = 25°C)

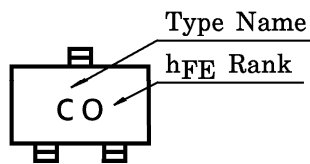
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	VCBO	80	V
Collector-Emitter Voltage	VCEO	80	V
Emitter-Base Voltage	VEBO	5	V
Collector Current	IC	300	mA
Base Current	IB	60	mA
Collector Power Dissipation	PC	200	mW
Junction Temperature	Tj	150	°C
Storage Temperature Range	Tstg	-55~150	°C

Unit in mm



Weight : 0.012g

MARKING



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## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 50V, I_E = 0$	—	—	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	—	—	0.1	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 5mA, I_B = 0$	80	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = 2V, I_C = 50mA$	70	—	240	
	$h_{FE(2)}$	$V_{CE} = 2V, I_C = 200mA$	40	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 200mA, I_B = 10mA$	—	—	0.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 2V, I_C = 5mA$	0.55	—	0.8	V
Transition Frequency	$f_T$	$V_{CE} = 10V, I_C = 10mA$	—	100	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	10	—	pF

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

