

**TOSHIBA****2SC3419**

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

**2SC3419**

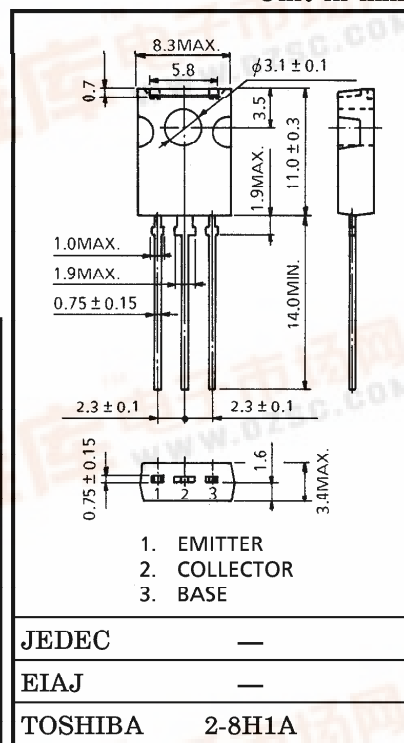
MEDIUM POWER AMPLIFIER APPLICATIONS.

Unit in mm

- Low Saturation Voltage  
:  $V_{CE(sat)} = 0.25V$  (Typ.) ( $I_C = 500mA$ ,  $I_B = 50mA$ )
- High Collector Power Dissipation :  $P_C = 1.2W$  ( $T_a = 25^\circ C$ )
- Complementary to 2SA1356

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

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V <sub>CBO</sub>	40	V
Collector-Emitter Voltage		V <sub>CEO</sub>	40	V
Emitter-Base Voltage		V <sub>EBO</sub>	5	V
Collector Current		I <sub>C</sub>	800	mA
Base Current		I <sub>B</sub>	80	mA
Collector Power Dissipation	T <sub>a</sub> = 25°C	P <sub>C</sub>	1.2	W
	T <sub>c</sub> = 25°C		5	
Junction Temperature		T <sub>j</sub>	150	°C
Storage Temperature Range		T <sub>stg</sub>	− 55~150	°C



Weight : 0.82g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 40V$ , $I_E = 0$	—	—	1.0	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 5V$ , $I_C = 0$	—	—	1.0	$\mu A$
Collector-Emitter Breakdown Voltage	$V_{(BR) CEO}$	$I_C = 10mA$ , $I_B = 0$	40	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = 2V$ , $I_C = 50mA$	70	—	240	
	$h_{FE(2)}$	$V_{CE} = 2V$ , $I_C = 0.8A$	13	60	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 500mA$ , $I_B = 50mA$	—	0.25	0.8	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 2V$ , $I_C = 500mA$	—	0.90	1.1	V
Transition Frequency	$f_T$	$V_{CE} = 2V$ , $I_C = 0.5A$	50	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

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