

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC3419

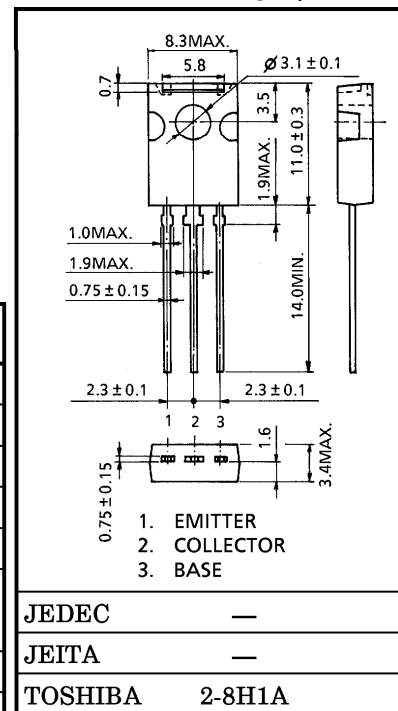
MEDIUM POWER AMPLIFIER APPLICATIONS.

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 ($T_c = 25^\circ C$)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage		V_{CBO}	40	V
Collector-Emitter Voltage		V_{CEO}	40	V
Emitter-Base Voltage		V_{EBO}	5	V
Collector Current		I_C	800	mA
Base Current		I_B	80	mA
Collector Power Dissipation	$T_a = 25^\circ C$	P_C	1.2	W
	$T_c = 25^\circ C$		5	
Junction Temperature		T_j	150	$^\circ C$
Storage Temperature Range		T_{stg}	$-55 \sim 150$	$^\circ C$

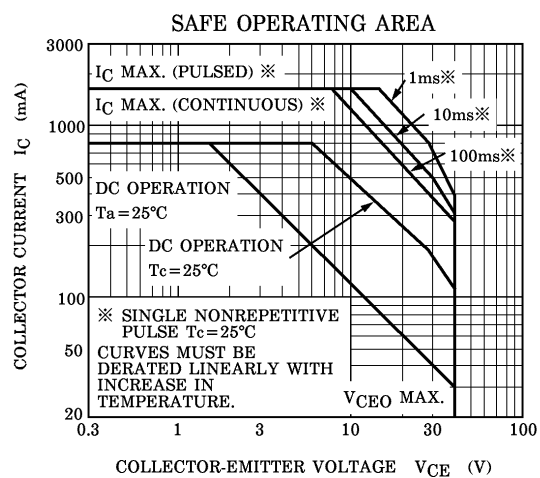
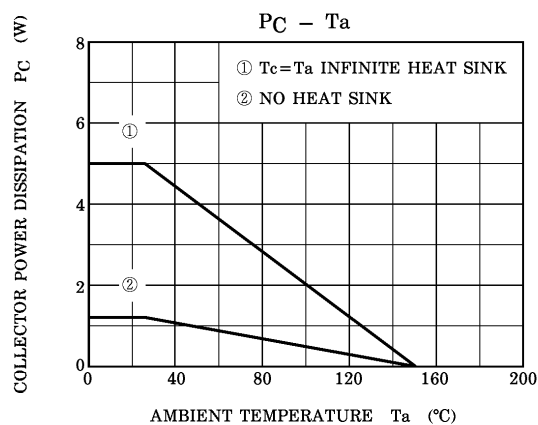
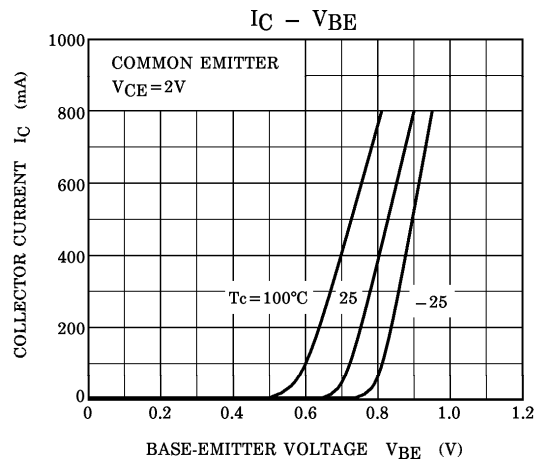
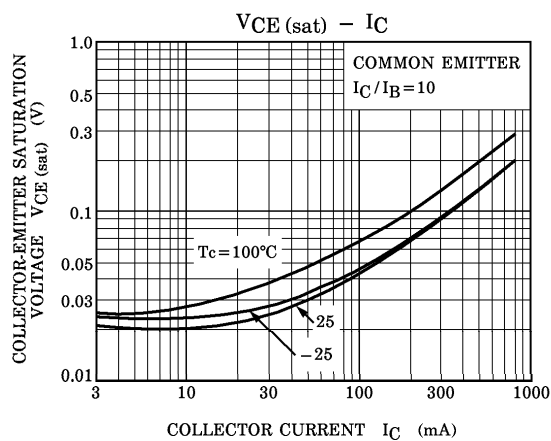
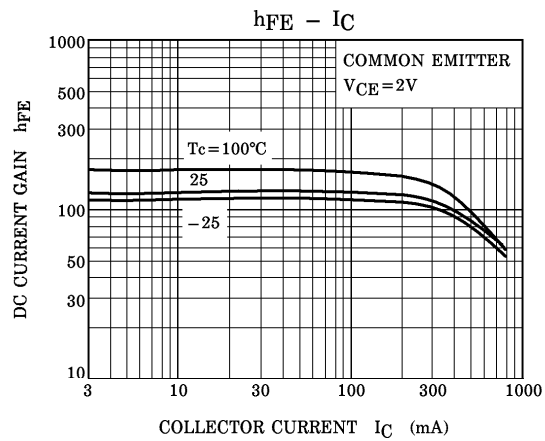
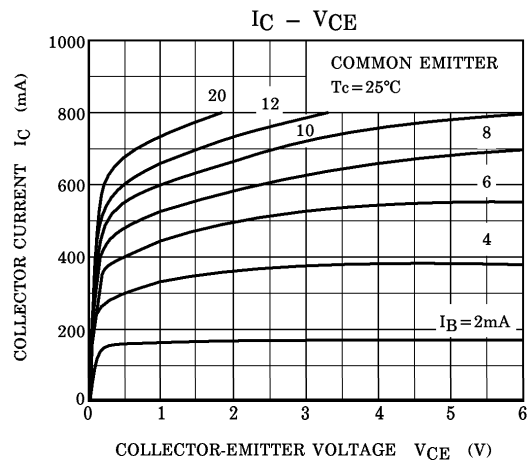


Weight : 0.82g (Typ.)

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = 40V$, $I_E = 0$	—	—	1.0	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = 5V$, $I_C = 0$	—	—	1.0	μA
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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