

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

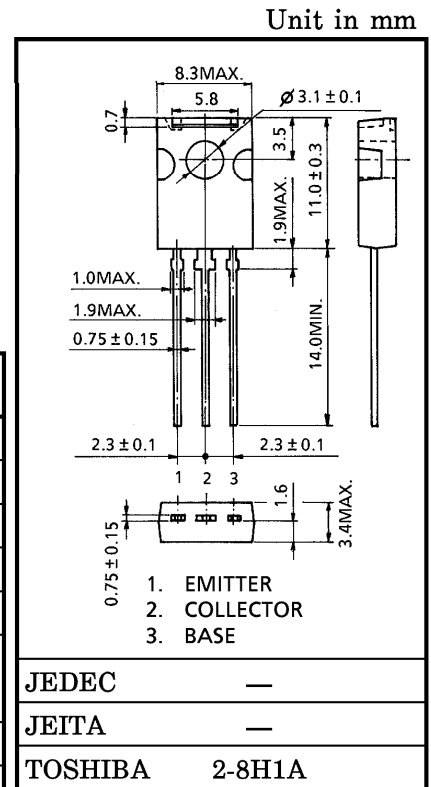
# 2SC3419

MEDIUM POWER AMPLIFIER APPLICATIONS.

- 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		$T_{stg}$	-55~150	$^\circ C$

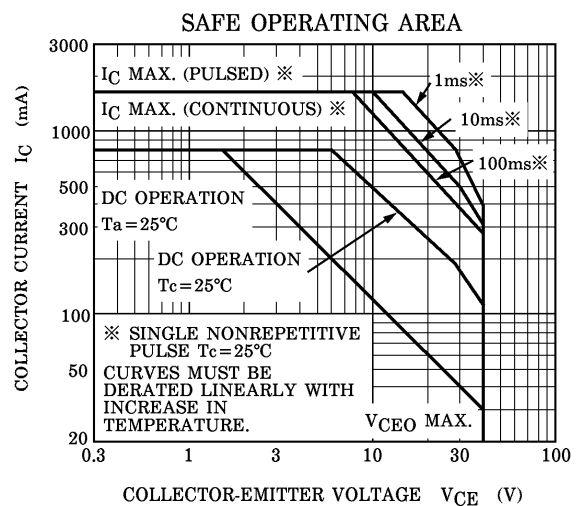
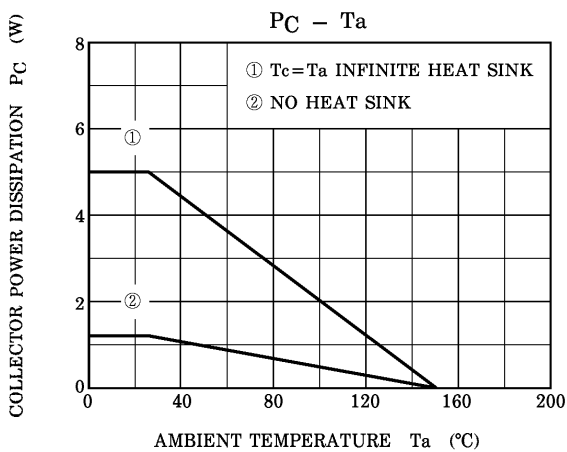
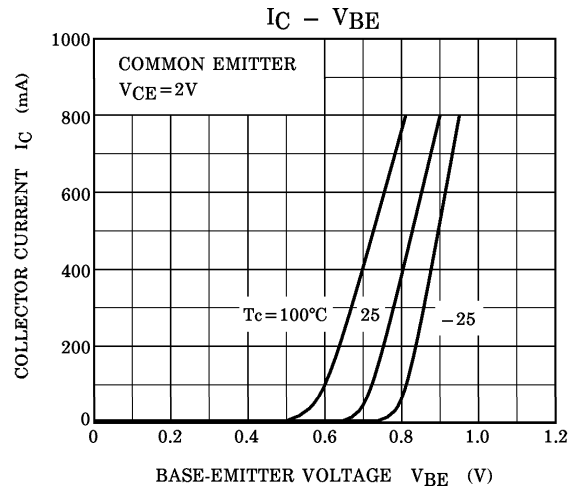
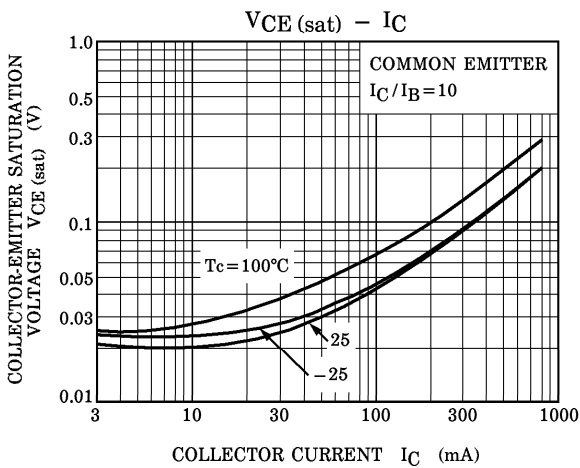
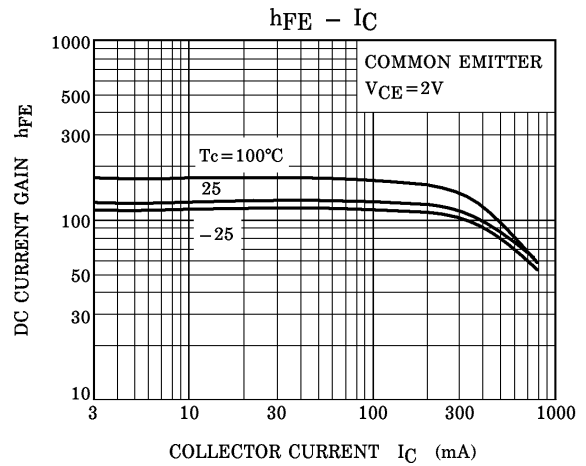
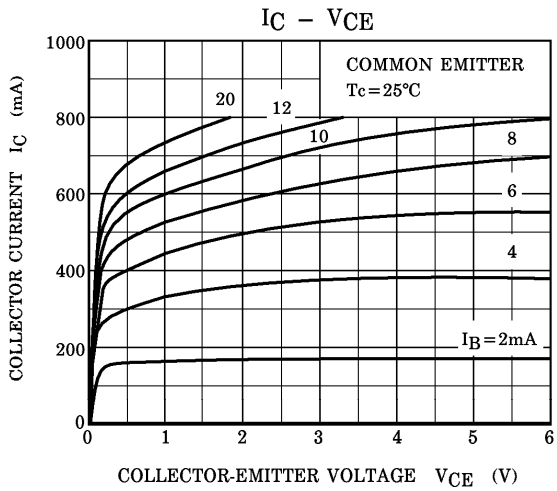


Weight : 0.82g (Typ.)

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	$\mu A$
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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