

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE

# 2SC5030

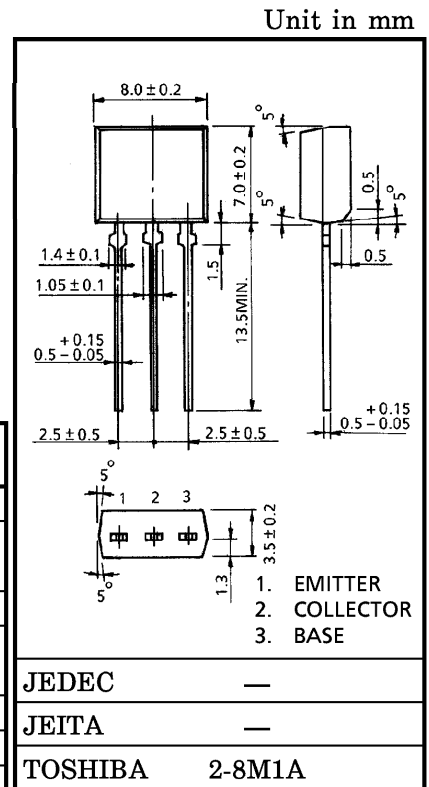
STORBE FLASH APPLICATIONS

MEDIUM POWER AMPLIFIER APPLICATIONS

- High DC Current Gain  
:  $h_{FE(1)} = 800 \sim 3200$   
 $h_{FE(2)} = 250$  (Min.)
- Low Saturation Voltage  
:  $V_{CE(sat)} = 0.5V$  (Max.)
- High Collector Power Dissipation :  $P_C = 1.3W$

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	50	V
Collector-Emitter Voltage	$V_{CES}$	40	V
	$V_{CEO}$	20	
Emitter-Base Voltage	$V_{EBO}$	8	V
Collector Current	DC	$I_C$	V
	Pulse (Note 1)	$I_{CP}$	
Base Current	$I_B$	0.5	A
Collector Power Dissipation	$P_C$	1.3	W
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$

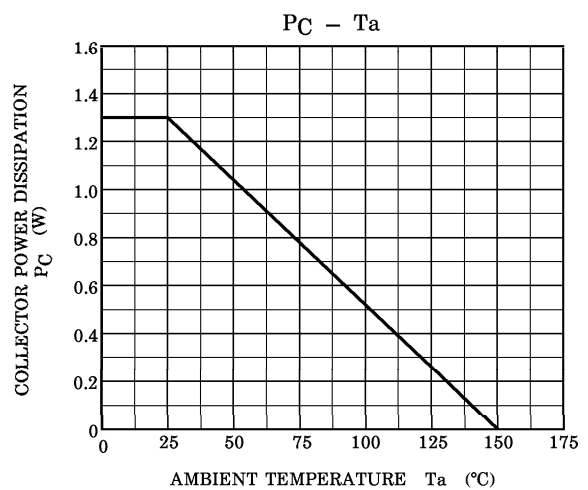
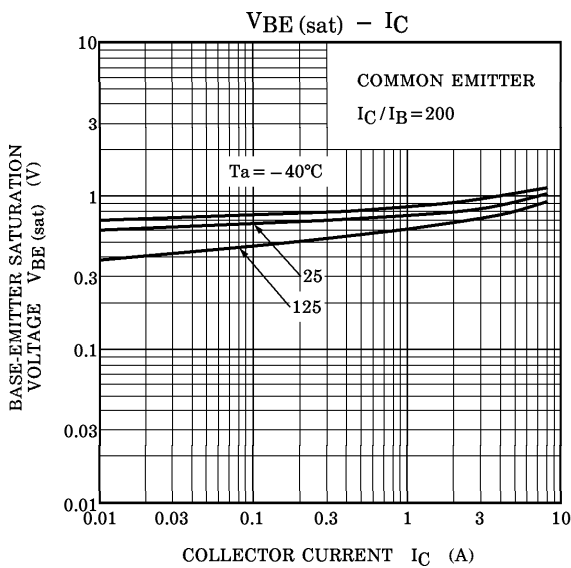
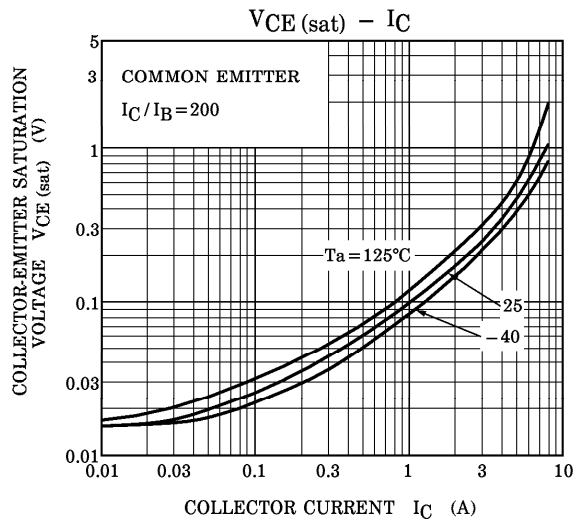
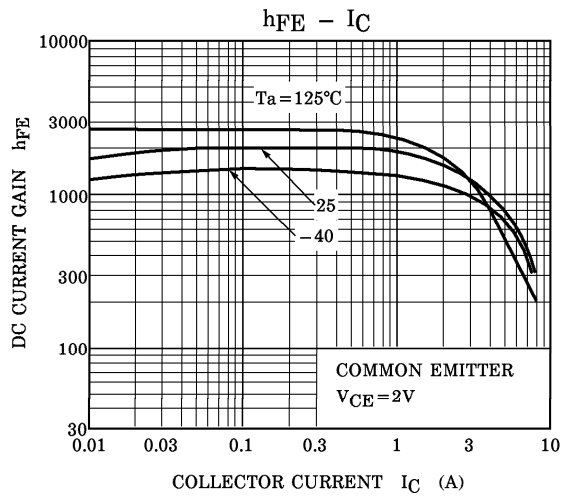
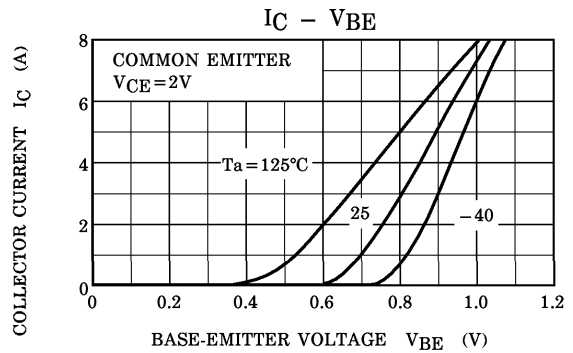
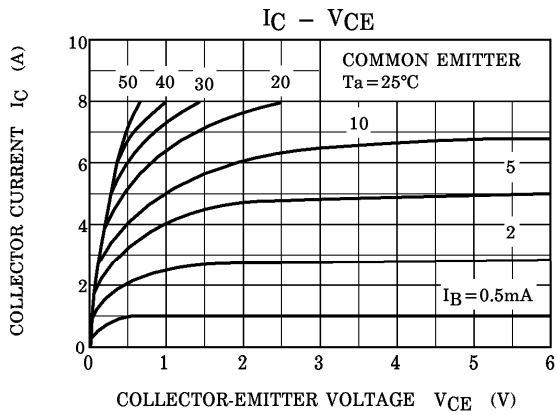


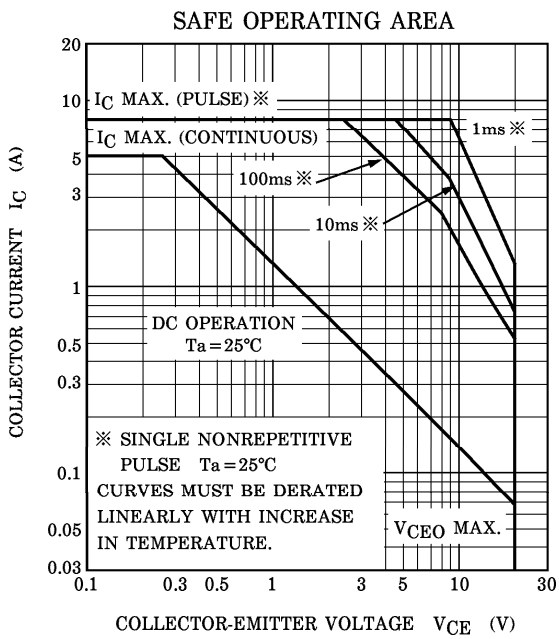
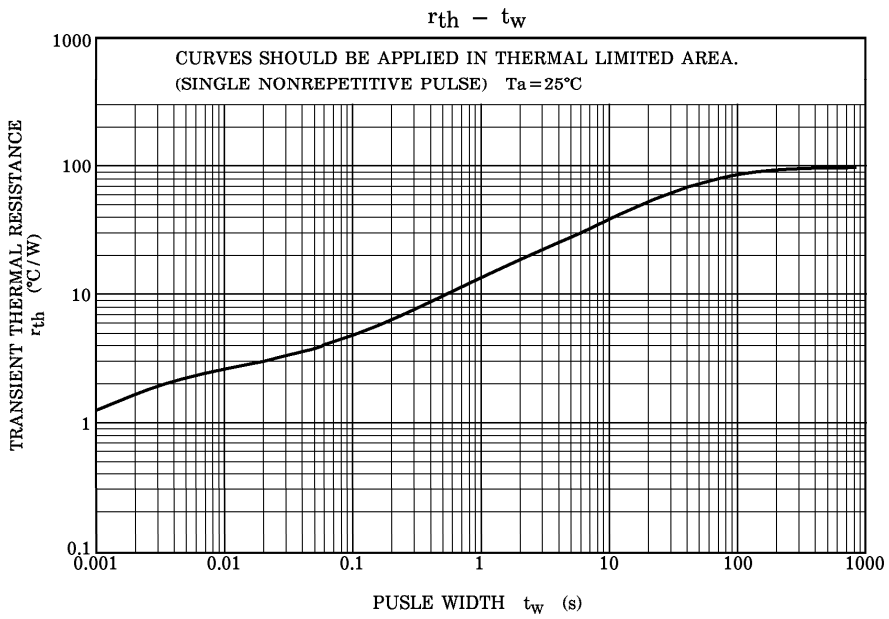
Weight : 0.55g (Typ.)

(Note 1) : Conditions : Pulse Width=10ms (Max.), Duty Cycle=30% (Max.)

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB} = 50V, I_E = 0$	—	—	100	nA
Emitter Cut-off Current	$I_{EBO}$	$V_{EB} = 8V, I_C = 0$	—	—	100	nA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = 10mA, I_B = 0$	20	—	—	V
DC Current Gain	$h_{FE(1)}$	$V_{CE} = 2V, I_C = 0.5A$	800	—	3200	
	$h_{FE(2)}$	$V_{CE} = 2V, I_C = 4A$	250	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = 4A, I_B = 40mA$	—	—	0.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = 2V, I_C = 4A$	—	—	1.2	V
Transition Frequency	$f_T$	$V_{CE} = 2V, I_C = 0.5A$	—	150	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	45	—	pF





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