

TOSHIBA

2SC3328

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

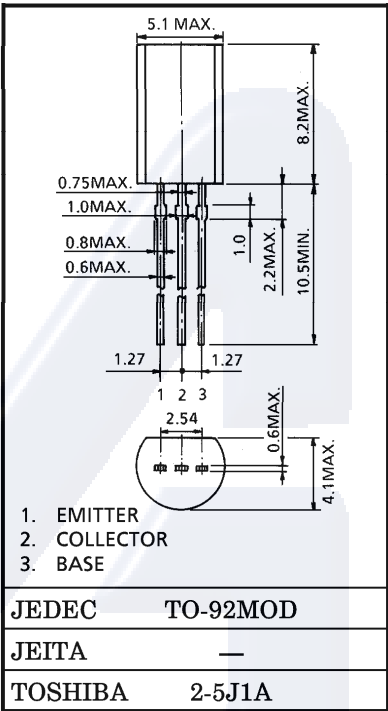
2SC3328

POWER AMPLIFIER APPLICATIONS

POWER SWITCHING APPLICATIONS

- Low Saturation Voltage
: $V_{CE(sat)} = 0.5V$ (Max.) ($I_C = 1A$)
- High Speed Switching Time : $t_{stg} = 1.0\mu s$ (Typ.)
- Complementary to 2SA1315

Unit in mm

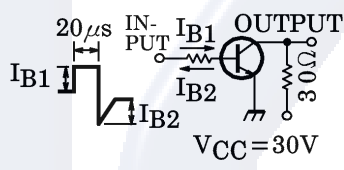


Weight : 0.36g (Typ.)

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

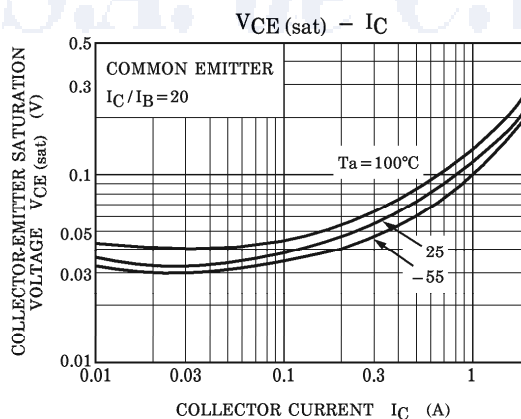
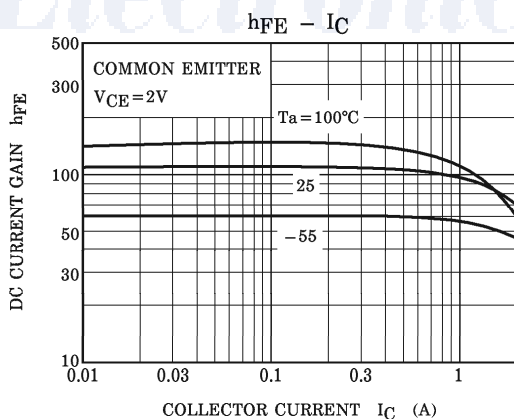
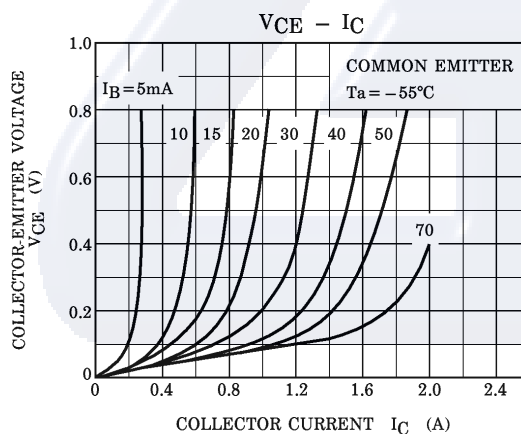
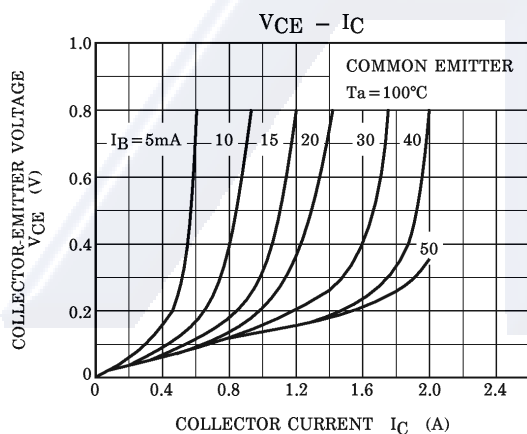
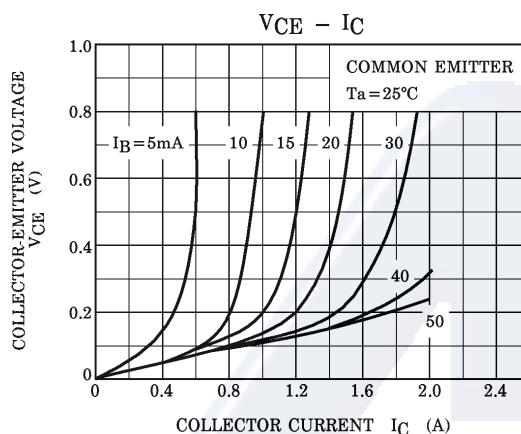
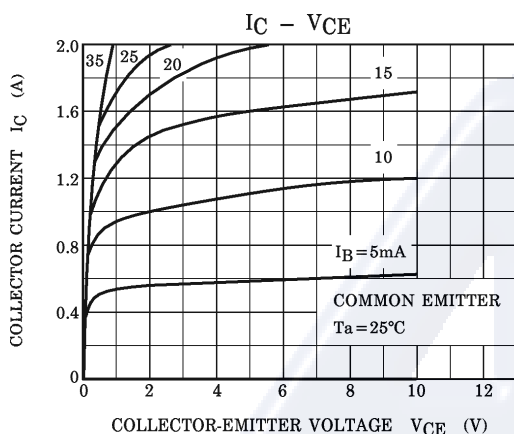
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	80	V
Collector-Emitter Voltage	V_{CEO}	80	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	2	A
Base Current	I_B	1	A
Collector Power Dissipation	P_C	900	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	$-55 \sim 150$	$^\circ C$

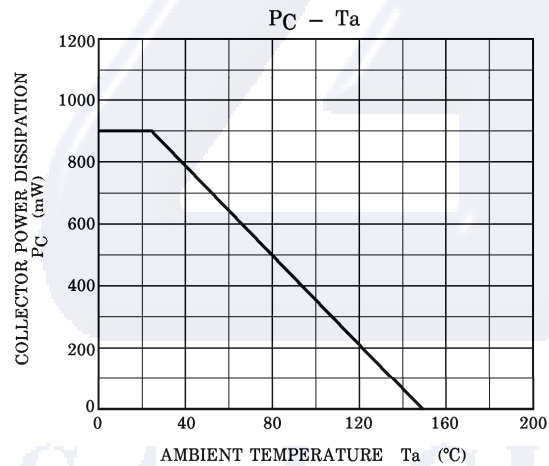
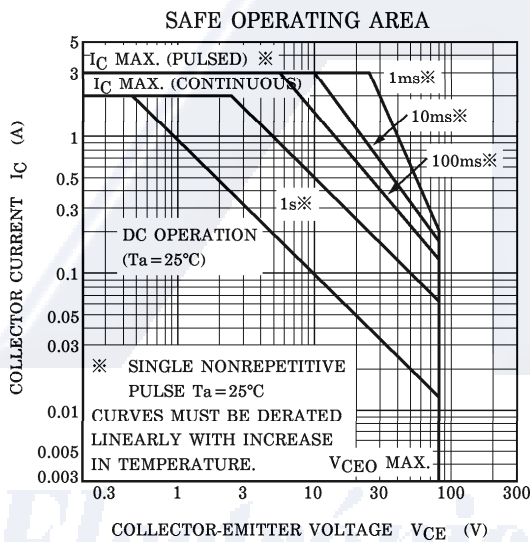
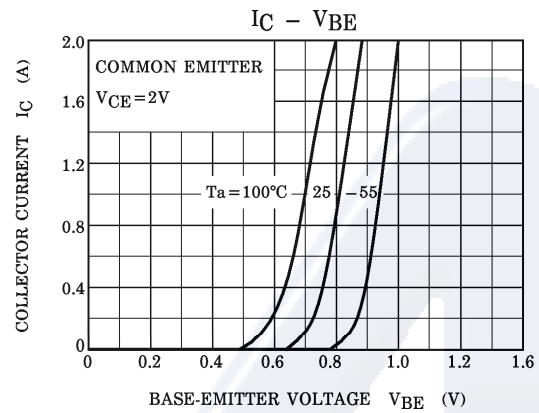
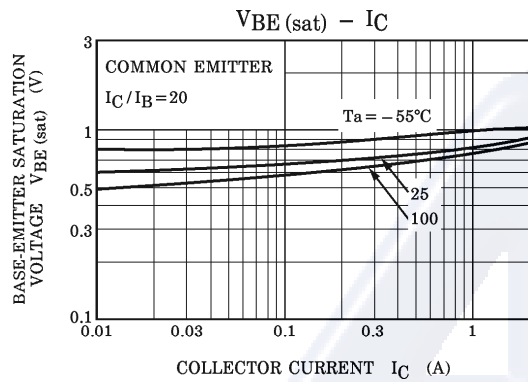
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=80V, I_E=0$	—	—	1.0	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=5V, I_C=0$	—	—	1.0	μA
Collector-Emitter Breakdown Voltage		$V_{(BR) CEO}$	$I_C=10mA, I_B=0$	80	—	—	V
DC Current Gain		$h_{FE(1)}$ (Note)	$V_{CE}=2V, I_C=0.5A$	70	—	240	
		$h_{FE(2)}$	$V_{CE}=2V, I_C=1.5A$	40	—	—	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C=1A, I_B=0.05A$	—	0.15	0.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C=1A, I_B=0.05A$	—	0.9	1.2	V
Transition Frequency		f_T	$V_{CE}=2V, I_C=0.5A$	—	100	—	MHz
Collector Output Capacitance		C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	—	30	—	pF
Switching Time	Turn-on Time	t_{on}	 $I_{B1} = -I_{B2} = 0.05A$, DUTY CYCLE $\leq 1\%$	—	0.2	—	μs
	Storage Time	t_{stg}		—	1.0	—	
	Fall Time	t_f		—	0.2	—	

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

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TOSHIBA**2SC3328**

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