

TOSHIBA TRANSISTOR SILICON NPN EPITAXIAL TYPE (PCT PROCESS)

2SC3328

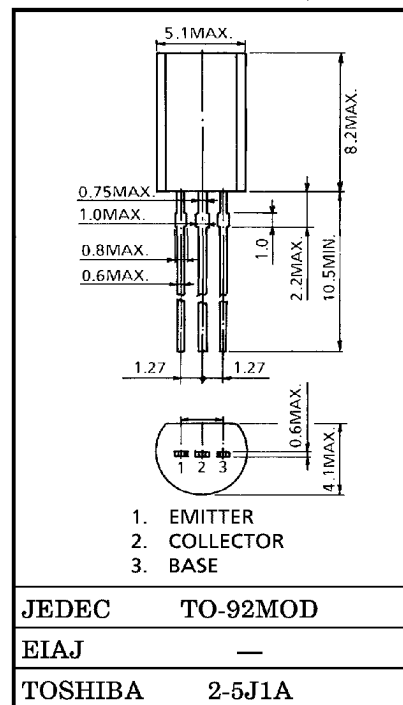
POWER AMPLIFIER APPLICATIONS.

POWER SWITCHING APPLICATIONS.

INDUSTRIAL APPLICATIONS

Unit in mm

- 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



Weight : 0.36g

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CB0}	80	V
Collector-Emitter Voltage	V_{CE0}	80	V
Emitter-Base Voltage	V_{EB0}	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}	-55~150	$^\circ C$

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	ICBO	V _{CB} = 80V, I _E = 0	—	—	1.0	μA	
Emitter Cut-off Current	IEBO	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}		—	0.2	—	μs
	Storage Time	t _{stg}		—	1.0	—	
	Fall Time	t _f		I _{B1} = -I _{B2} = 0.05A, DUTY CYCLE ≤ 1%	—	0.2	

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

