

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

2SA1315

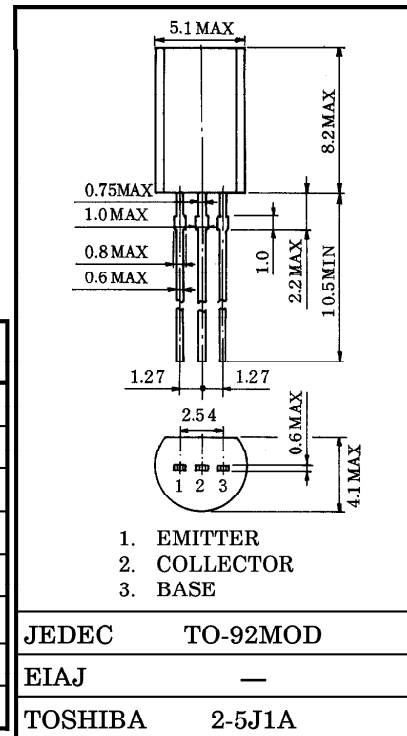
POWER AMPLIFIER APPLICATIONS.
POWER SWITCHING APPLICATIONS.

INDUSTRIAL APPLICATIONS
Unit in mm

- Low Collector Saturation Voltage
: $V_{CE(sat)} = -0.5V$ (Max.) ($I_C = -1A$)
- High Speed Switching Time : $t_{stg} = 1.0\mu s$ (Typ.)
- Complementary to 2SC3328

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}	-55~150	$^\circ C$



Weight : 0.36g

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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		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	—	-0.2	-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	—	80	—	MHz
Collector Output Capacitance		C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz	—	45	—	pF
Switching Time	Turn-on Time	t _{on}	<p> $20\mu s$ INPUT I_{B1} I_{B2} I_{B1} I_{B2} $-I_{B1} = I_{B2} = 0.05A$ DUTY CYCLE $\leq 1\%$ OUTPUT 30Ω $V_{CC} = -30V$ </p>	—	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

