

TOSHIBA

2SB1067

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (DARLINGTON POWER)

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MICRO MOTOR DRIVE, HAMMER DRIVE APPLICATIONS.
SWITCHING APPLICATIONS.
POWER AMPLIFIER APPLICATIONS.

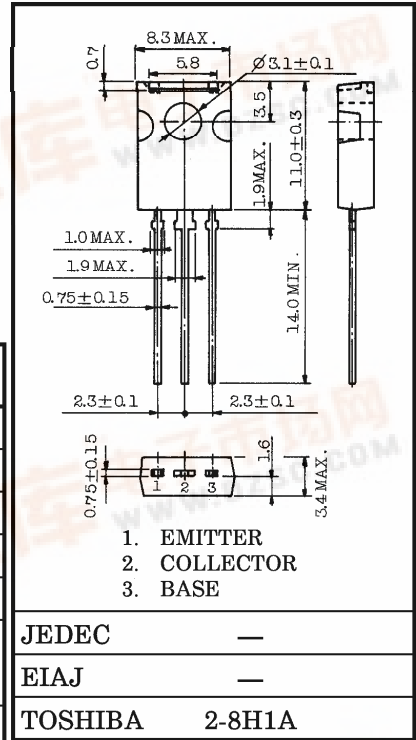
INDUSTRIAL APPLICATIONS

Unit in mm

- High DC Current Gain
: $h_{FE} = 2000$ (Min.) ($V_{CE} = -2V$, $I_C = -1A$)
- Low Saturation Voltage
: $V_{CE(sat)} = -1.5V$ (Max.) ($I_C = -1A$, $I_B = -1mA$)

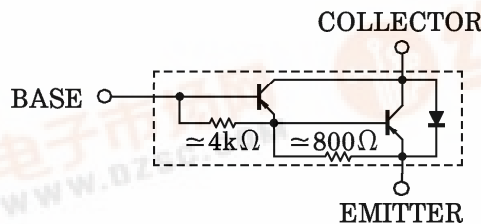
MAXIMUM RATINGS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-8	V
Collector Current	I_C	-2	A
Base Current	I_B	-0.5	A
Collector Power Dissipation	P_C	$T_a = 25^\circ C$	1.5
		$T_c = 25^\circ C$	10
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



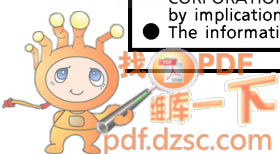
Weight : 0.82g

EQUIVALENT CIRCUIT



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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB} = -80V, I_E = 0$	—	—	-10	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB} = -8V, I_C = 0$	—	—	-4	mA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C = -10mA, I_B = 0$	-80	—	—	V
DC Current Gain		h_{FE}	$V_{CE} = -2V, I_C = -1A$	2000	—	—	
Collector-Emitter Saturation Voltage		$V_{CE(sat)}$	$I_C = -1A, I_B = -1mA$	—	—	-1.5	V
Base-Emitter Saturation Voltage		$V_{BE(sat)}$	$I_C = -1A, I_B = -1mA$	—	—	-2.0	V
Transition Frequency		f_T	$V_{CE} = -2V, I_C = -0.5A$	—	50	—	MHz
Collector Output Capacitance		C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	30	—	pF
Switching Time	Turn-on Time	t_{on}	<p>$I_{B1} = I_{B2} = 1mA$ DUTY CYCLE $\leq 1\%$ $V_{CC} = -30V$</p>	—	0.4	—	μs
	Storage Time	t_{stg}		—	2.0	—	
	Fall Time	t_f		—	0.4	—	

