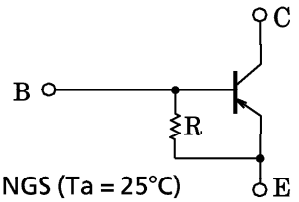
TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

RN6001

MOTOR DRIVE CIRCUIT APPLICATIONS.
POWER AMPLIFIER APPLICATIONS.
POWER SWITCHING APPLICATIONS.

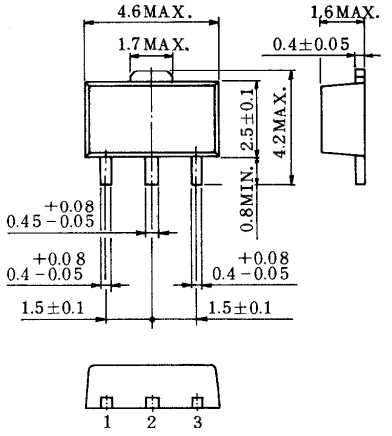
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- Small Flat Package
- P_C = 1~2W (Mounted on Ceramic substrate)
- Complementary to RN5001

EQUIVALENT CIRCUIT



R = 2kΩ (TYP.)

Unit in mm

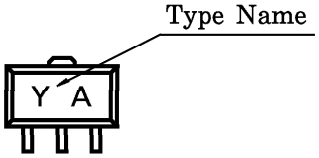


1. BASE
2. COLLECTOR (HEAT SINK)
3. EMITTER

PW-MINI	
JEDEC	—
EIAJ	SC-62
TOSHIBA	2-5K1A

Weight : 0.05g

MARKING



MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	−30	V
Collector-Emitter Voltage	V_{CES}	−30	V
Emitter-Base Voltage	V_{EBO}	−5	V
Collector Current	I_C	−2	A
Base Current	I_B	−0.4	A
Collector Power Dissipation	P_C	500	mW
Collector Power Dissipation	P_C*	1000	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	−55~150	°C

* : Mounted on ceramic substrate (250mm² × 0.8t)

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	V_{CB} = −30V, I_E = 0	—	—	−0.1	μA
Emitter Cut-off Current	I_{EBO}	V_{EB} = −5V, I_C = 0	−1.92	−2.5	−3.57	mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CES}$	I_C = −1mA	−30	—	—	V
DC Current Gain	$h_{FE(1)}$	V_{CE} = −2V, I_C = −0.5A	100	—	320	
	$h_{FE(2)}$	V_{CE} = −2V, I_C = −2.0A	50	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C = −1A, I_B = −0.05A	—	—	−0.5	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C = −1A, I_C = −0.05A	—	—	−1.2	V
Transition Frequency	f_T	V_{CE} = −2V, I_C = −0.5A	—	120	—	MHz
Collector Output Capacitance	C_{ob}	V_{CB} = −10V, I_E = 0, f = 1MHz	—	40	—	pF
Resistor	R		1.4	2.0	2.6	kΩ

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