

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE

2SB1016A

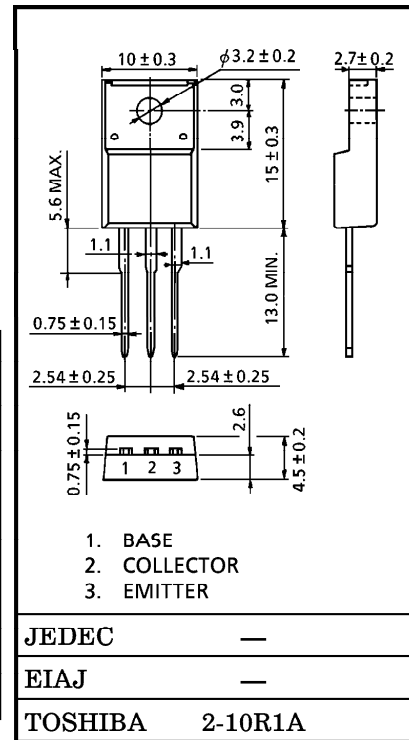
POWER AMPLIFIER APPLICATIONS

Unit in mm

- High Breakdown Voltage : $V_{CEO} = -100V$
- Low Collector-Emitter Saturation Voltage : $V_{CE(sat)} = -2.0V$ (Max.)
- Complementary to 2SD1407A

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-100	V
Collector-Emitter Voltage	V_{CEO}	-100	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-5	A
Base Current	I_B	-0.5	A
Collector Power Dissipation ($T_c = 25^\circ C$)	P_C	30	W
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55~150	$^\circ C$



ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB} = -100V, I_E = 0$	—	—	-100	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB} = -5V, I_C = 0$	—	—	-1	mA
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	$I_C = -50mA, I_B = 0$	-100	—	—	V
DC Current Gain	$h_{FE(1)}$ (Note)	$V_{CE} = -5V, I_C = -1A$	70	—	240	
	$h_{FE(2)}$	$V_{CE} = -5V, I_C = -4A$	20	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -4A, I_B = -0.4A$	—	—	-2.0	V
Base-Emitter Voltage	V_{BE}	$V_{CE} = -5V, I_C = -4A$	—	—	-1.5	V
Transition Frequency	f_T	$V_{CE} = -5V, I_C = -1A$	—	5	—	MHz
Collector Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	270	—	pF

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

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