

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE

# 2SA1811

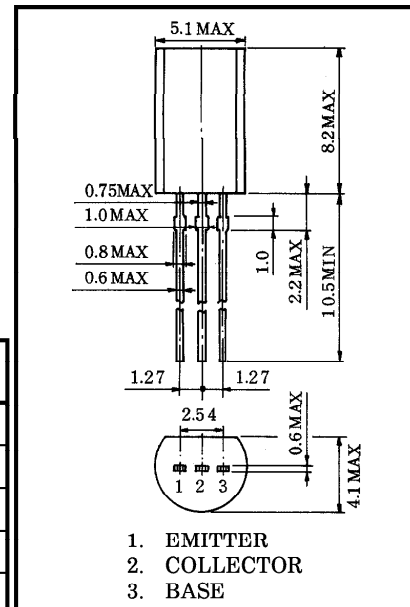
LOW FREQUENCY AMPLIFIER APPLICATIONS.  
 DRIVER STAGE AMPLIFIER APPLICATIONS.  
 SWITCHING APPLICATIONS.

Unit in mm

- Excellent  $h_{FE}$  Linearity  
 :  $h_{FE(2)} = 35$  (Min.), ( $V_{CE} = -2V$ ,  $I_C = -300mA$ )
- Complementary to 2SC4707

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

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CB0}$	-35	V
Collector-Emitter Voltage	$V_{CEO}$	-30	V
Emitter-Base Voltage	$V_{EB0}$	-5	V
Collector Current	$I_C$	-500	mA
Base Current	$I_B$	-100	mA
Collector Power Dissipation	$P_C$	800	mW
Junction Temperature	$T_j$	150	$^\circ C$
Storage Temperature Range	$T_{stg}$	-55~150	$^\circ C$



JEDEC	TO-92MOD
EIAJ	—
TOSHIBA	2-5J1A

Weight : 0.36g

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CB0}$	$V_{CB} = -35V$ , $I_E = 0$	—	—	-0.1	$\mu A$
Emitter Cut-off Current	$I_{EB0}$	$V_{EB} = -5V$ , $I_C = 0$	—	—	-0.1	$\mu A$
DC Current Gain	$h_{FE(1)}$	$V_{CE} = -2V$ , $I_C = -100mA$	100	—	300	
	$h_{FE(2)}$	$V_{CE} = -2V$ , $I_C = -300mA$	35	—	—	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C = -300mA$ , $I_B = -30mA$	—	-0.2	-0.5	V
Base-Emitter Voltage	$V_{BE}$	$V_{CE} = -2V$ , $I_C = -100mA$	—	-0.8	-1.0	V
Transition Frequency	$f_T$	$V_{CE} = -6V$ , $I_C = -20mA$	—	200	—	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB} = -6V$ , $I_E = 0$ , $f = 1MHz$	—	9	—	pF

961001EAA2

TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.

