

**PNP SILICON TRANSISTOR**  
**2SA1626**

**DESCRIPTION** The 2SA1626 is designed for general purpose amplifier and high speed switching applications.

- FEATURES**
- High Voltage.
  - High Speed Switching.
  - Low Collector Saturation Voltage.

**ABSOLUTE MAXIMUM RATINGS**

Maximum Temperatures

Storage Temperature . . . . . -55 to +150 °C

Junction Temperature . . . . . 150 °C Maximum

Maximum Power Dissipation ( $T_a = 25^\circ\text{C}$ )

Total Power Dissipation . . . . . 1.0 W

Maximum Voltages and Currents ( $T_a = 25^\circ\text{C}$ )

$V_{CBO}$  Collector to Base Voltage . . . . . -400 V

$V_{CEO}$  Collector to Emitter Voltage . . . . . -400 V

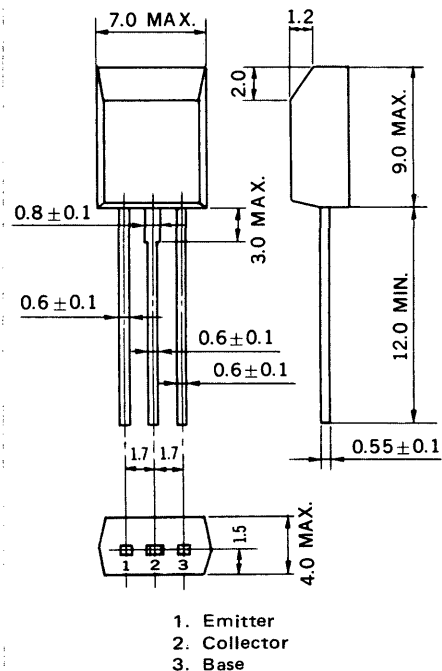
$V_{EBO}$  Emitter to Base Voltage . . . . . -7.0 V

$I_C$  Collector Current (DC) . . . . . -2.0 A

$I_C$  Collector Current (pulse)\* . . . . . -4.0 A

\*  $PW \leq 10$  ms, Duty Cycle  $\leq 50$  %

**PACKAGE DIMENSIONS**  
in millimeters



**ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )**

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
$h_{FE1}^{**}$	DC Current Gain	40	60	120	—	$V_{CE} = -5.0$ V, $I_C = -0.1$ A
$h_{FE2}^{**}$	DC Current Gain	6	22		—	$V_{CE} = -5.0$ V, $I_C = -1.0$ A
$f_T$	Gain Bandwidth Product	10	40		MHz	$V_{CE} = -10$ V, $I_E = 0.1$ A
$C_{ob}$	Output Capacitance		30	40	pF	$V_{CB} = -10$ V, $I_E = 0$ , $f = 1.0$ MHz
$I_{CBO}$	Collector Cutoff Current			-10	$\mu$ A	$V_{CB} = -400$ V, $I_E = 0$
$I_{EBO}$	Emitter Cutoff Current			-10	$\mu$ A	$V_{EB} = -5.0$ V, $I_C = 0$
$V_{CE(sat)}^{**}$	Collector Saturation Voltage		-0.25	-0.5	V	$I_C = -0.5$ A, $I_B = -0.1$ A
$V_{BE(sat)}^{**}$	Base Saturation Voltage		-0.85	-1.2	V	$I_C = -0.5$ A, $I_B = -0.1$ A
$t_{on}$	Turn On Time		0.03	0.5	$\mu$ s	$I_C = -1.0$ A, $R_L = 150 \Omega$ $I_{B1} = -I_{B2} = -0.2$ A $V_{CC} = -150$ V
$t_{stg}$	Storage Time		1.4	2.0	$\mu$ s	
$t_f$	Fall Time		0.1	0.7	$\mu$ s	

\*\* Pulsed  $PW \leq 350 \mu$ s, Duty Cycle  $\leq 2$  %

Classification of  $h_{FE1}$

Rank	L	K
Range	40 to 80	60 to 120

Test Conditions:  $V_{CE} = -5.0$  V,  $I_C = -0.1$  A

TYPICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

