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Renesas Electronics website: <http://www.renesas.com>

April 1st, 2010
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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PNP SILICON TRANSISTOR
2SA1627

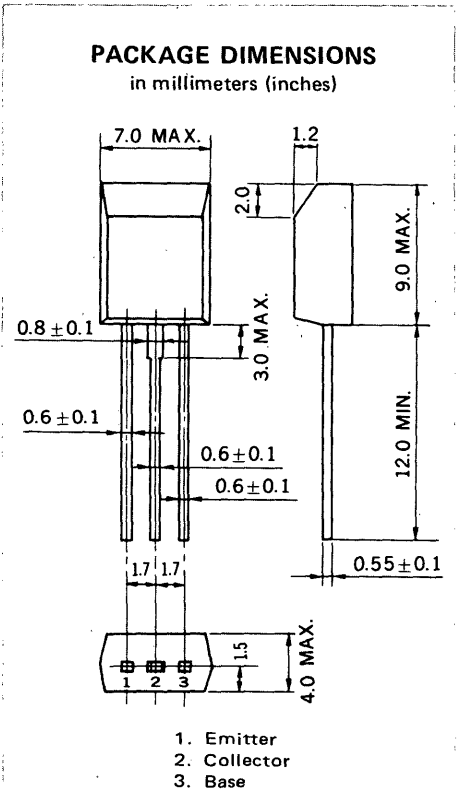
DESCRIPTION The 2SA1627 is designed for general purpose amplifier and high speed switching applications.

- 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 °C)	
Total Power Dissipation	1.0 W
Maximum Voltages and Currents (T_a = 25 °C)	
V _{CBO} Collector to Base Voltage	-600 V
V _{CEO} Collector to Emitter Voltage	-600 V
V _{EBO} Emitter to Base Voltage	-7.0 V
I _C Collector Current (DC)	-1.0 A
I _C Collector Current (pulse)*	-2.0 A

* PW ≤ 10 ms, Duty Cycle ≤ 50 %



ELECTRICAL CHARACTERISTICS (T_a = 25 °C)

SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h _{FE1} **	DC Current Gain	30	58	120	-	V _{CE} = -5.0 V, I _C = -0.1 A
h _{FE2} **	DC Current Gain	5	19		-	V _{CE} = -5.0 V, I _C = -0.5 A
f _T	Gain Bandwidth Product	10	28		MHz	V _{CE} = -10 V, I _E = 0.1 A
C _{ob}	Output Capacitance		42	50	pF	V _{CB} = -10 V, I _E = 0, f = 1.0 MHz
I _{CBO}	Collector Cutoff Current			-10	μA	V _{CB} = -600 V, I _E = 0
I _{EBO}	Emitter Cutoff Current			-10	μA	V _{EB} = -7.0 V, I _C = 0
V _{CE(sat)} **	Collector Saturation Voltage		-0.28	-0.5	V	I _C = -0.3 A, I _B = -0.06 A
V _{BE(sat)} **	Base Saturation Voltage		-0.85	-1.2	V	I _C = -0.3 A, I _B = -0.06 A
t _{on}	Turn On Time		0.1	0.5	μs	I _C = -0.5 A, R _L = 500 Ω I _{B1} = -I _{B2} = -0.1 A V _{CC} = -250 V
t _{stg}	Storage Time		3.5	5.0	μs	
t _f	Fall Time		0.08	0.5	μs	

** Pulsed PW ≤ 350 μs, Duty Cycle ≤ 2 %

Classification of h_{FE1}

Rank	M	L	K
Range	30 to 60	40 to 80	60 to 120

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

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

