



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

ST 2SA1020

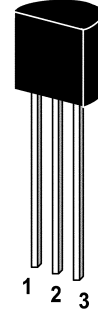
PNP Silicon Epitaxial Transistor

POWER AMPLIFIER APPLICATIONS

POWER SWITCHING APPLICATIONS

FEATURES

- Low Collector Saturation Voltage
 $V_{CE(sat)} = -0.5V$ (Max.) ($I_C = -1A$)
- High Speed Switching Time
 $T_{stg} = 1.0\mu s$ (Typ.)



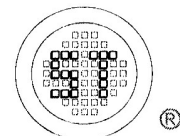
1. Emitter 2. Collector 3. Base

TO-92 Plastic Package

Weight approx. 0.19g

Absolute Maximum Ratings ($T_a = 25^\circ C$)

	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	50	V
Collector Emitter Voltage	$-V_{CEO}$	50	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	2	A
Collector Power Dissipation	P_{tot}	900	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_s	-55 to +150	$^\circ C$



SEMTECH

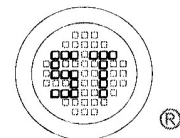
Dated : 24/03/2004

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ST 2SA1020**Characteristics at $T_{amb}=25\text{ }^{\circ}\text{C}$**

	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE}=2V, -I_C=0.5A$	O	h_{FE}	70	-	140	-
	Y	h_{FE}	120	-	240	-
		h_{FE}	40	-	-	-
Collector Cutoff Current at $-V_{CB}=50V$		$-I_{CBO}$	-	-	1	μA
Emitter Cutoff Current at $-V_{EB}=5V$		$-I_{EBO}$	-	-	1	μA
Collector Emitter Breakdown Voltage at $-I_C=10mA$		$-V_{(BR)CEO}$	50	-	-	V
Transition Frequency at $-V_{CE}=2V, -I_C=0.5A$		f_T	-	100	-	MHz
Collector Output Capacitance at $-V_{CB}=10V, f=1MHz$		C_{OB}	-	40	-	pF
Base Emitter Saturation Voltage at $-I_C=1A, -I_B=0.05A$		$-V_{BE(sat)}$	-	-	1.2	V
Collector Emitter Saturation Voltage at $-I_C=1A, -I_B=0.05A$		$-V_{CE(sat)}$	-	-	0.5	V
Switching Time $-I_{B1}=I_{B2}=0.05A, -V_{CC}=30V$ DUTY CYCLE $\leq 1\%$	Turn-on Time	t_{on}	-	0.1	-	μS
	Storage Time	t_{stg}	-	1.0	-	
	Fall Time	t_f	-	0.1	-	

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