



2SA1300

PNP EPITAXIAL SILICON TRANSISTOR

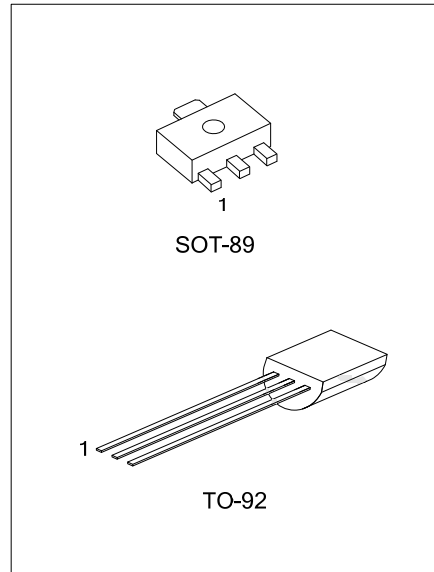
SILICON PNP EPITAXIAL TYPE

DESCRIPTION

- * Strobe Flash Applications.
- * Medium Power Amplifier Applications.

FEATURES

- * High DC Current Gain and Excellent h_{FE} Linearity.
- * $h_{FE(1)}=140-600$, ($V_{CE}=-1V, I_C=-0.5A$)
- * $h_{FE(2)}=60(\text{Min.}), 120(\text{Typ.}), (V_{CE}=-1V, I_C=-4A)$
- * Low Saturation Voltage
- * $V_{CE(SAT)}=-0.5V(\text{Max.}), (I_C=-2A, I_E=-50mA)$



ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SA1300L-xx-AB3-R	2SA1300G-xx-AB3-R	SOT-89	B	C	E	Tape Reel
2SA1300L-xx-T92-B	2SA1300G-xx-T92-B	TO-92	E	C	B	Tape Box
2SA1300L-xx-T92-K	2SA1300G-xx-T92-K	TO-92	E	C	B	Bulk
2SA1300L-xx-T92-R	2SA1300G-xx-T92-R	TO-92	E	C	B	Tape Reel

Note: Pin Assignment: E: Emitter C: Collector B: Base

<p>2SA1300L-xx-AB3-R</p>	<ul style="list-style-type: none"> (1) R: Tape Reel, B: Tape Box, K: Bulk (2) AB3: SOT-89, T92: TO-92 (3) xx: Refer to Classification of h_{FE1} (4) G: Halogen Free, L: Lead Free
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■ ABSOLUTE MAXIMUM RATING (T_A=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V _{CBO}	-20	V
Collector-Emitter Voltage		V _{CES}	-20	V
		V _{CEO}	-10	
Emitter-Base Voltage		V _{EBO}	-6	V
Collector Current	DC	I _C	-2	A
	Pulsed (Note 1)	I _{CP}	-5	
Base Current		I _B	-2	A
Collector Power Dissipation		P _C	750	mW
Junction Temperature		T _J	150	°C
Storage Temperature		T _{STG}	-40 ~ +150	°C

Note 1. Pulse Width= 10ms(Max.), Duty Cycle=30%(Max.)

- Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.
- The device is guaranteed to meet performance specification within 0°C~70°C operating temperature range and assured by design from -20°C~85°C.

■ ELECTRICAL CHARACTERISTICS (T_A=25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =10mA, I _B =0	-10			V
Emitter-collector breakdown voltage	V _{(BR)EBO}	I _E = -1mA, I _C =0	-6			V
Collector cut-off current	I _{CBO}	V _{CE} = -20V, I _E =0			-100	nA
Emitter cut-off current	I _{EBO}	V _{BE} = -6V, I _C =0			-100	nA
DC current Gain	h _{FE1}	V _{CE} = -1V, I _C =0.5A	140		600	
	h _{FE2}	V _{CE} = -1V, I _C = -4A	60	120		
Collector-emitter saturation voltage	V _{CE(SAT)}	I _C = -2A, I _B = -50mA		-0.2	-0.5	V
Base-emitter voltage	V _{BE}	V _{CE} = -1V, I _C = -2A		-0.83	-1.5	V
Current gain bandwidth product	f _T	V _{CE} = -1V, I _C = -0.5A		140		MHz
Output capacitance	C _{OB}	V _{CE} = -10V, I _E =0, f=1MHz		50		pF

■ CLASSIFICATIONS OF h_{FE1}

RANK	Y	GR	BL
RANGE	140-280	200-400	300-600

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