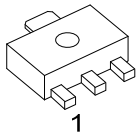
2SB766A

PNP SILICON TRANSISTOR

LOW FREQUENCY OUTPUT AMPLIFICATION



SOT-89

■ FEATURES

* Large collector power dissipation Pc.
* Mini Power type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

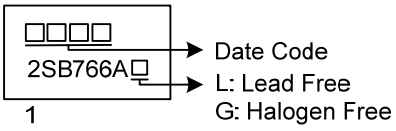
■ ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
2SB766AL-x-AB3-R	2SB766AG-x-AB3-R	SOT-89	B	C	E	Tape Reel

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

2SB766AG-x-AB3-R (1)Packing Type (2)Package Type (3)Rank (4)Green Package	(1) R: Tape Reel (2) AB3: SOT-89 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free, L: Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-1	A
Peak Collector Current	I_{CP}	-1.5	A
Collector Power Dissipation (Note 2)	P_C	1	W
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{STG}	-55 ~ +150	°C

Notes: 1. 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.
2. Printed circuit board: Copper foil area of 1cm2 or more, and the board thickness of 1.7mm for the collector portion

■ THERMAL DATA

PARAMETER	SYMBOL	RATING	UNIT
Junction to Ambient	θ_{JA}	125	°C/W

■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector Base Voltage	V_{CBO}	I_C= -10μA , I_E=0	-60			V
Collector Emitter Voltage	V_{CEO}	I_C= -2mA , I_B= 0	-50			V
Emitter Base Voltage	V_{EBO}	I_E= -10μA, I_C=0	-5			V
Collector Cut-Off Current	I_{CBO}	V_{CB}= -20V, I_E=0			-0.1	μA
DC Current Transfer Ratio	h_{FE1}	V_{CE}= -10V, I_C= -500mA (Note)	85		340	
	h_{FE2}	V_{CE}= -5V, I_C= -1A (Note)	50			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C = -500mA, I_B =-50mA (Note)		-0.2	-0.4	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C = -500mA, I_B =-50mA (Note)		-0.85	-1.2	V
Transition Frequency	f_T	V_{CB}= -10V, I_E= 50mA, f=200MHz		200		MHz
Output Capacitance	C_{OB}	V_{CB}= -10V, I_E= 0, f=1MHz		20	30	pF

Note: Pulse measurement.

■ CLASSIFICATION OF h_{FE1}

RANK	Q	R	S
RANGE	85-170	120-240	170-340

■ TYPICAL CHARACTERISTICS