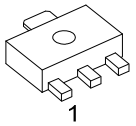
2SB1424

Preliminary | ***PNP SILICON TRANSISTOR***

LOW $V_{CE(SAT)}$ TRANSISTOR



SOT- 89

Lead-free: 2SB1424L
Halogen-free: 2SB1424G

■ DESCRIPTION

As the UTC PNP silicon transistor, the **2SB1424** is the epitaxial planar type transistor which has very low $V_{CE(SAT)}$ (Collector-emitter saturation voltage).

■ FEATURES

* Very good DC current gain
* Very low $V_{CE(SAT)}$=-0.2V@ I_C/I_B=(-2A)/(-0.1A)

■ ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
2SB1424-x-AB3-R	2SB1424L-x-AB3-R	2SB1424G-x-AB3-R	SOT-89	B	C	E	Tape Reel

2SB1424L-x-AB3-R
(1)Packing Type
(2)Package Type
(3)Rank
(4)Lead Plating

(1) R: Tape Reel
(2) AB3: SOT-89
(3) x: refer to Classification of h_{FE}
(4) G: Halogen Free, L: Lead Free, Blank: Pb/Sn

■ ABSOLUTE MAXIMUM RATING (T_a=25°C)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	-20	V
Collector-Emitter Voltage		V_{CEO}	-20	V
Emitter-Base Voltage		V_{EBO}	-6	V
Collector Current	DC	I_C	-3	A
	Pulse(Note 2)		-5	
Collector Dissipation		P_C	0.5	W
Junction Temperature		T_J	150	℃
Storage Temperature		T_{STG}	-55 ~ +150	℃

Note: 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. Pulse test: Pulse Width=10ms

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=-50μA , I_E=0	-20			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=-1mA , I_B=0	-20			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=-50μA, I_C=0	-6			V
Collector Cutoff Current	I_{CBO}	V_{CB}=-20V			-0.1	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=-5V			-0.1	μA
ON CHARACTERISTICS						
DC Current Gain	h_{FE}	V_{CE}=-2V, I_C=-0.1A	120		390	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C/I_B =(-2A)/(-0.1A)			-0.5	V
SMALL-SIGNAL CHARACTERISTICS						
Current Gain Bandwidth Product	f_T	V_{CE}=-2V, I_E=0.5A, f=100MHz		240		MHz
Output Capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz		35		pF

■ CLASSIFICATION OF h_{FE1}

RANK	Q	R
RANGE	120-270	180-390