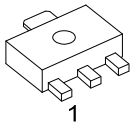
2SB1424

PNP SILICON TRANSISTOR

LOW $V_{CE(SAT)}$ TRANSISTOR



SOT- 89

■ 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)

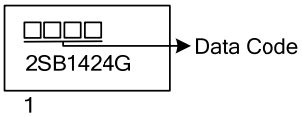
■ ORDERING INFORMATION

Order Number	Package	Pin Assignment			Packing
		1	2	3	
2SB1424G-x-AB3-R	SOT-89	B	C	E	Tape Reel

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

2SB1424G-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

■ MARKING



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

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	℃

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. 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