



### PNP Low Vce(sat) Transistor

Voltage

-100V

Current

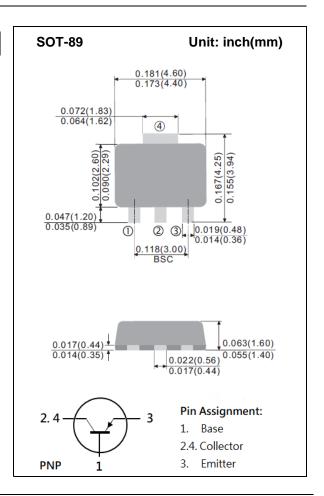
-1A

#### **Features**

- Silicon PNP epitaxial type
- Low Vce(sat) -0.35V(max)@Ic/lb= -500mA / -50mA
- High collector current capability
- Excellent DC current gain characteristics
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 Standard
- NPN complement: PBHV8110DH-AU

### **Mechanical Data**

- Case: SOT-89 Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.002 ounces, 0.057 grams
- Marking: 911D



# Maximum Ratings and Thermal Characteristics (T<sub>A</sub>=25 °C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Collector-Base Voltage	$V_{CBO}$	-120	V
Collector-Emitter Voltage	$V_{CEO}$	-100	V
Emitter-Base Voltage	V <sub>EBO</sub>	-6	V
Collector Current (DC)	I <sub>C</sub>	-1	Α
Collector Current (Pulse)	I <sub>CP</sub>	-3	Α
Power Dissipation	$P_{D}$	1.4	W
Junction Temperature	$T_J$	150	°C
Operating Junction and Storage Temperature Range	$T_{J}$ , $T_{STG}$	-55~150	°C
Thermal Resistance from Junction to Ambient (Note)	$R_{\theta JA}$	89	°C/W

Note: Mounted on FR4 PCB at 1 inch square copper pad.





# **Electrical Characteristics** (T<sub>A</sub>=25 °C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
OFF Characteristics						
Collector-Emitter Breakdown Voltage	BV <sub>CEO</sub>	I <sub>C</sub> = -10mA, I <sub>B</sub> = 0A	-100	-	-	V
Collector-Base Breakdown Voltage	BV <sub>CBO</sub>	$I_{C}$ = -0.1mA, $I_{E}$ = 0A	-120	-	-	V
Emitter-Base Breakdown Voltage	BV <sub>EBO</sub>	$I_E = -0.1 \text{mA}, I_C = 0 \text{A}$	-6	-	-	V
Collector Cutoff Current	I <sub>CBO</sub>	V <sub>CB</sub> = -120V, I <sub>E</sub> = 0A	-	-	-500	nA
Emitter Cutoff Current	I <sub>EBO</sub>	$V_{EB}$ = -6V, $I_{C}$ = 0A	-	-	-500	nA
ON characteristics						
DC Current Gain (Note1)	h <sub>FE</sub>	$V_{CE} = -2V, I_{C} = -150mA$	140	-	330	-
		$V_{CE} = -5V, I_{C} = -500 \text{mA}$	100	-	300	
		$V_{CE}$ = -5V, $I_{C}$ = -1A	40	-	-	
Collector-Emitter Saturation Voltage (Note1)	V <sub>CE(SAT)</sub>	$I_{C}$ = -0.1A, $I_{B}$ = -10mA	-	-90	-150	mV
		$I_{C}$ = -0.5A, $I_{B}$ = -50mA	-	-260	-350	
		I <sub>C</sub> = -1A, I <sub>B</sub> = -0.1A	-	-430	-600	
Base-Emitter Saturation voltage	V <sub>BE(SAT)</sub>	$I_{C}$ = -0.1A, $I_{B}$ = -10mA	-	-	-1.0	.,,
(Note1)		$I_{C}$ = -0.5A, $I_{B}$ = -50mA	-	-	-1.1	V
Transition Frequency	f <sub>T</sub>	$V_{CE}$ = -5V, $I_{E}$ = 50mA	100	-	-	MHz
Collector Output Capacitance	С <sub>ОВ</sub>	$V_{CB}$ = -10V, $I_E$ = 0A, $f$ =1MHz	-	-	10	pF

Note: 1. Pulse width<a>300us</a>, Duty cycle<a>2%





#### **TYPICAL CHARACTERISTIC CURVES**

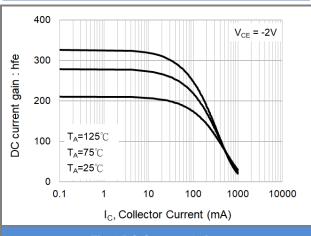


Fig.1 DC Current Gain

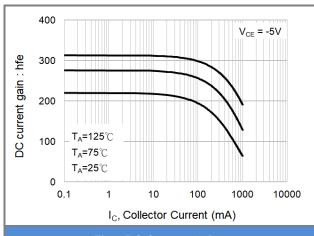


Fig.2 DC Current Gain

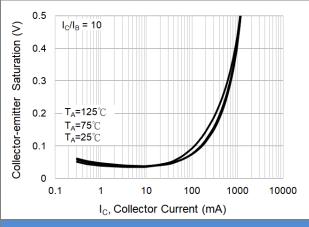


Fig.3 Collector-Emitter Saturation Voltage

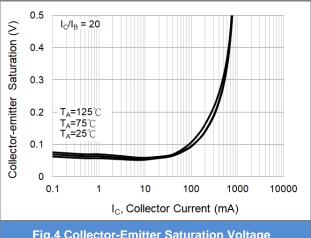
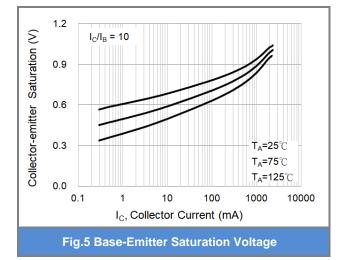
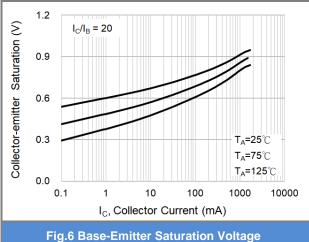


Fig.4 Collector-Emitter Saturation Voltage









### **TYPICAL CHARACTERISTIC CURVES**

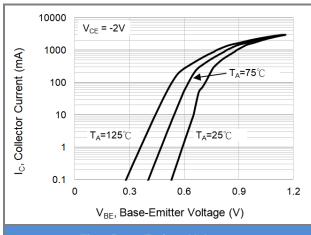
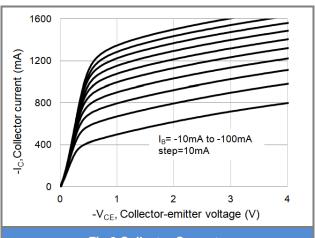
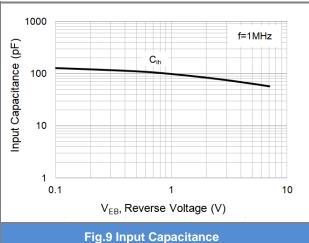
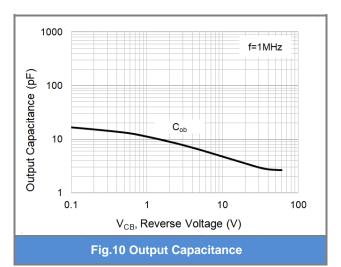


Fig.7 Base-Emitter Voltage



**Fig.8 Collector Current** 





125 100 Power Derating (%) 75 50 25 0 100 150 0 200 Temperature (°C) Fig.11 Power Derating Curve

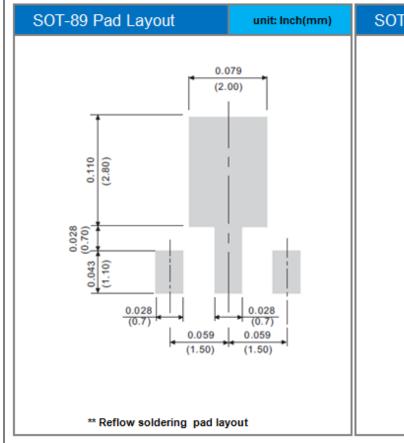


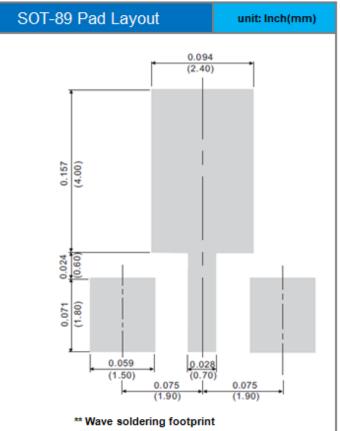


### PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing type	Marking	Version
PBHV9110DH-AU_R1_000A1	SOT-89	1k pcs / 7" reel	911D	Halogen free

### **MOUNTING PAD LAYOUT**





January 18,2019-REV.00 Page 5





### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are
  responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no
  representation or warranty that such applications will be suitable for the specified use without further testing or
  modification.
- The products shown herein are not designed and authorized for equipments relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

## 单击下面可查看定价,库存,交付和生命周期等信息

>>Panjit(强茂)