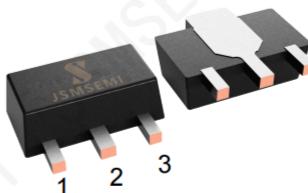
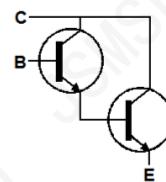


## Features

- High Collector Current
- High Current Gain
- RoHS and Reach Compliant
- Halogen and Antimony Free



1.Base 2.Collector 3.Emitter



Equivalent Circuit

## Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	80	V
Collector Emitter Voltage	$V_{CEO}$	60	V
Emitter Base Voltage	$V_{EBO}$	10	V
Collector Current	$I_C$	0.5	A
Maximum Power Dissipation	$P_D$	1.1	W
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

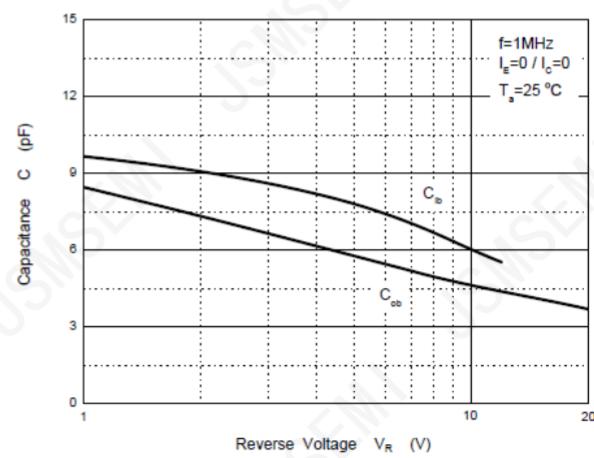
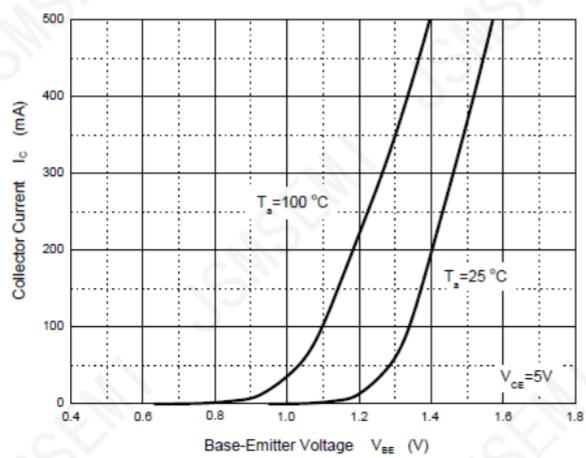
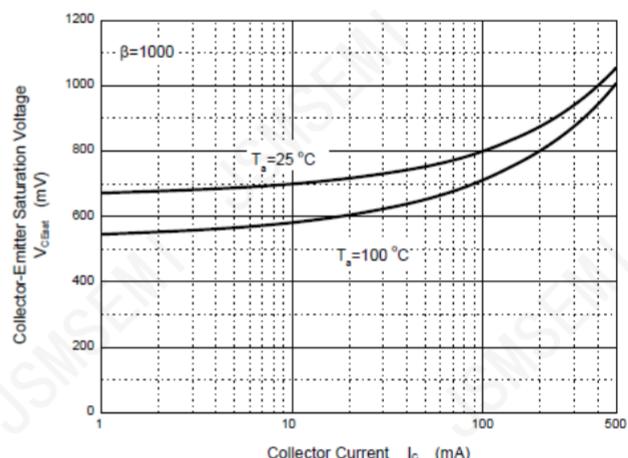
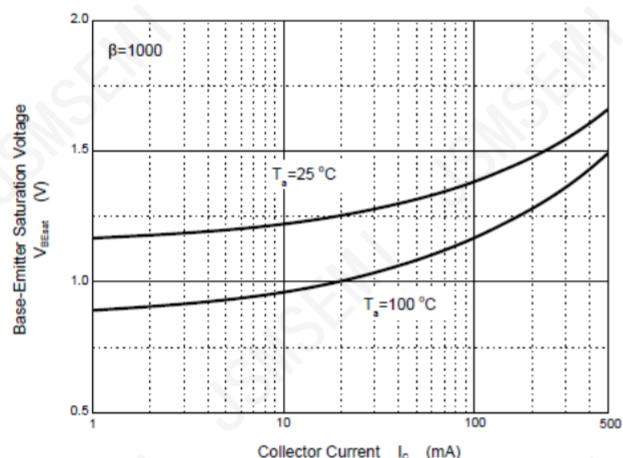
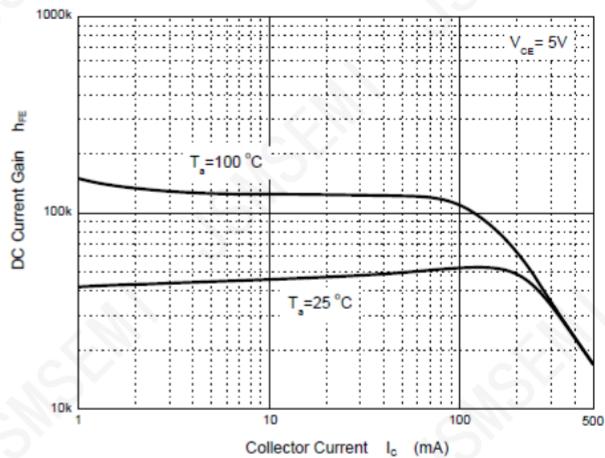
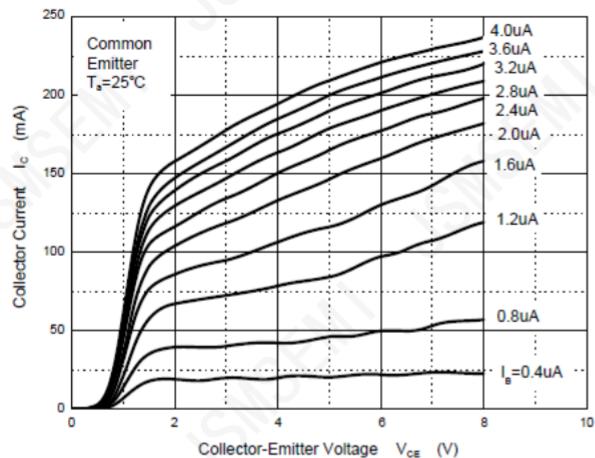
## Ordering Information

Order number	Package	Operation Temperature Range	MSL Grade	Ship, Quantity	Green
BCV49,115-JSM	SOT-89	-55 to +150°C	3	T&R,1000	Rohs

**Electrical Characteristics**

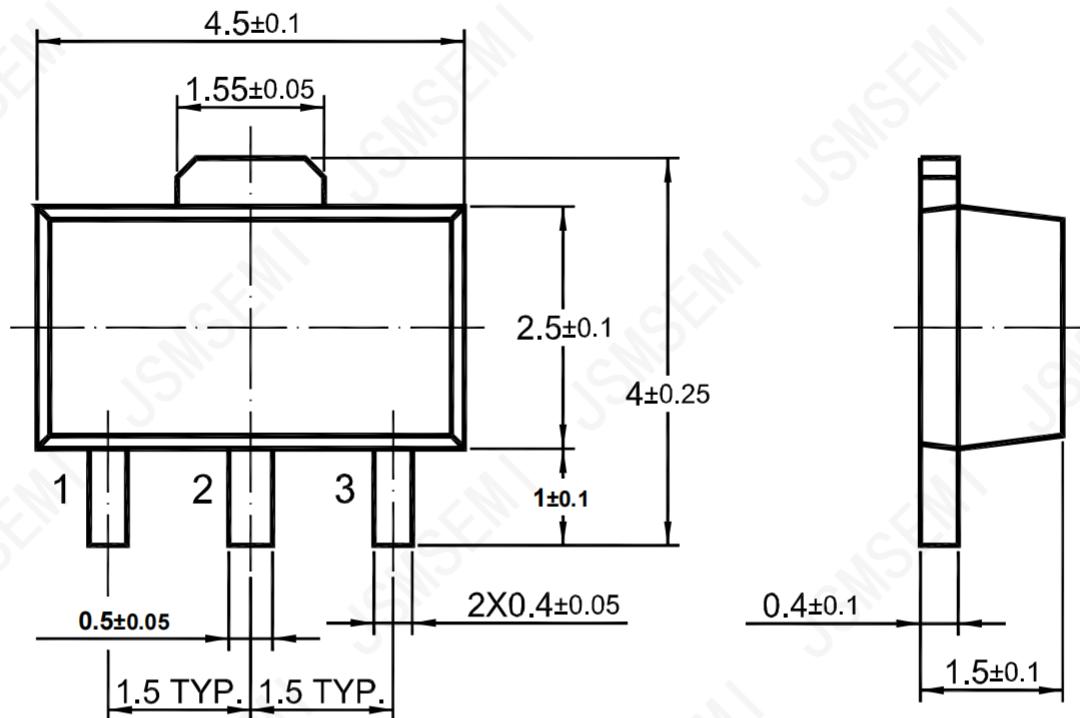
Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 5$ V, $I_C = 1$ mA	$H_{FE}$	2000	--	--	
at $V_{CE} = 5$ V, $I_C = 10$ mA		4000	--	--	
at $V_{CE} = 5$ V, $I_C = 100$ mA		10000	--	--	
Collector Base Cutoff Current at $V_{CB} = 60$ V	$I_{CBO}$	--	--	100	nA
Emitter Base Cutoff Current at $V_{EB} = 10$ V	$I_{EBO}$	--	--	100	nA
Collector Base Breakdown Voltage at $I_C = 100$ $\mu$ A	$V_{(BR)CBO}$	80	--	--	V
Collector Emitter Breakdown Voltage at $I_C = 10$ mA	$V_{(BR)CEO}$	60	--	--	V
Emitter Base Breakdown Voltage at $I_E = 10$ $\mu$ A	$V_{(BR)EBO}$	10	--	--	V
Collector Emitter Saturation Voltage at $I_C = 100$ mA, $I_B = 0.1$ mA	$V_{CE(sat)}$	--	--	1	V
Base Emitter Saturation Voltage at $I_C = 100$ mA, $I_B = 0.1$ mA	$V_{BE(sat)}$	--	--	1.5	V
Base Emitter On Voltage at $V_{CE} = 5$ V, $I_C = 10$ mA	$V_{BE(on)}$	--	--	1.4	V
Transition Frequency at $V_{CE} = 5$ V, $I_C = 30$ mA, $f = 100$ MHz	$f_T$	--	220	--	MHz

**Typical Characteristic Curves**


## Package Outline

SOT-89



Dimensions in mm

## Revision History

Rev.	Change	Date
V1.0	Initial version	6/27/2021

## Important Notice

JSMSEMI Semiconductor (JSMSEMI) PRODUCTS ARE NEITHER DESIGNED NOR INTENDED FOR USE IN MILITARY AND/OR AEROSPACE, AUTOMOTIVE OR MEDICAL DEVICES OR SYSTEMS UNLESS THE SPECIFIC JSMSEMI PRODUCTS ARE SPECIFICALLY DESIGNATED BY JSMSEMI FOR SUCH USE. BUYERS ACKNOWLEDGE AND AGREE THAT ANY SUCH USE OF JSMSEMI PRODUCTS WHICH JSMSEMI HAS NOT DESIGNATED FOR USE IN MILITARY AND/OR AEROSPACE, AUTOMOTIVE OR MEDICAL DEVICES OR SYSTEMS IS SOLELY AT THE BUYER'S RISK.

JSMSEMI assumes no liability for application assistance or customer product design. Customers are responsible for their products and applications using JSMSEMI products.

Resale of JSMSEMI products or services with statements different from or beyond the parameters stated by JSMSEMI for that product or service voids all express and any implied warranties for the associated JSMSEMI product or service. JSMSEMI is not responsible or liable for any such statements.

JSMSEMI All Rights Reserved. Information and data in this document are owned by JSMSEMI wholly and may not be edited, reproduced, or redistributed in any way without the express written consent from JSMSEMI.

Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. When designing equipment, refer to the "Delivery Specification" for the JSMSEMI product that you intend to use.

For additional information please contact [Kevin@jsmsemi.com](mailto:Kevin@jsmsemi.com) or visit [www.jsmsemi.com](http://www.jsmsemi.com)