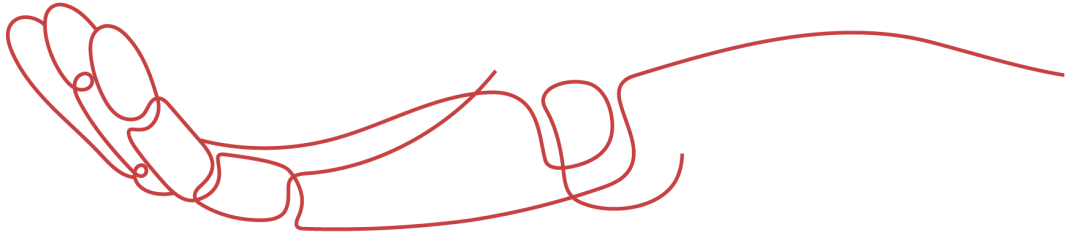




PRODUCT DATA SHEET



To learn more about JGSEMI, please visit our website at



Datasheet



Resources



Samples

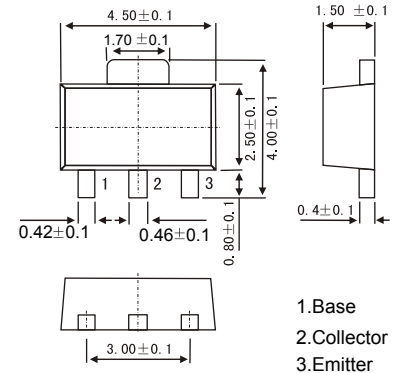
Please note: Please check the JINGAO Semiconductor website to verify the updated device numbers. The most current and up-to-date ordering information can be found at www.jg-semi.cn. Please email any questions regarding the system integration to JINGAO_questions@jgsemi.com.

■ Features

- Collector Current Capability $I_C = -0.2A$
- Collector Emitter Voltage $V_{CE0} = -400V$

SOT-89

Unit:mm



■ Absolute Maximum Ratings $T_a = 25^\circ C$

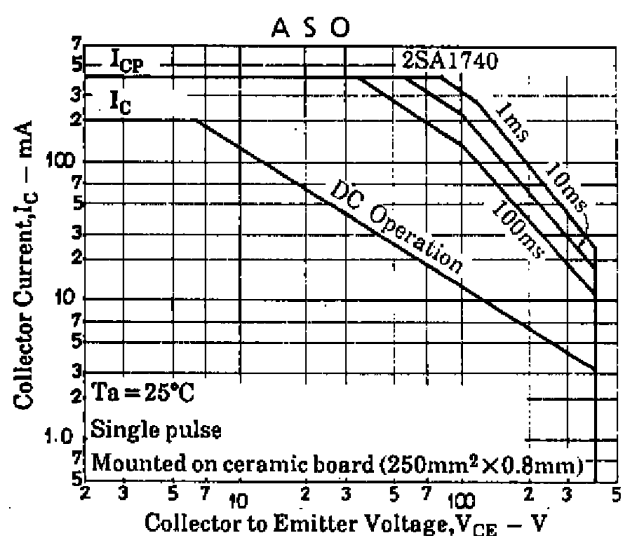
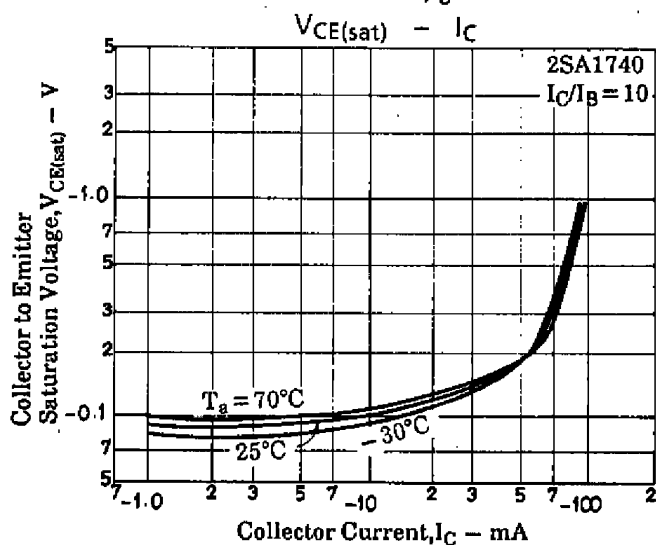
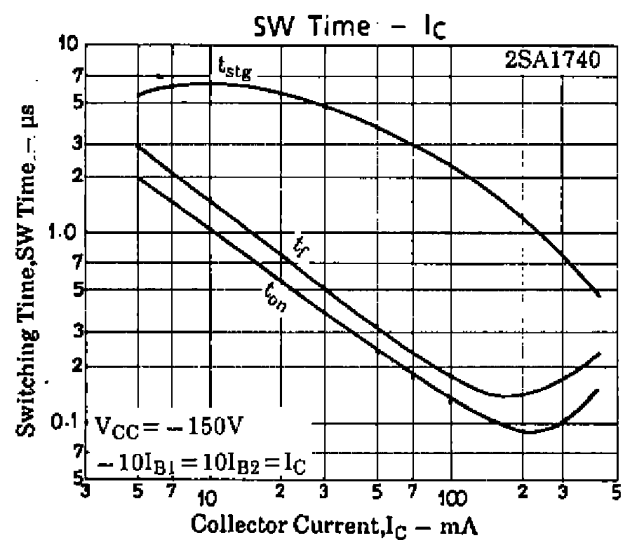
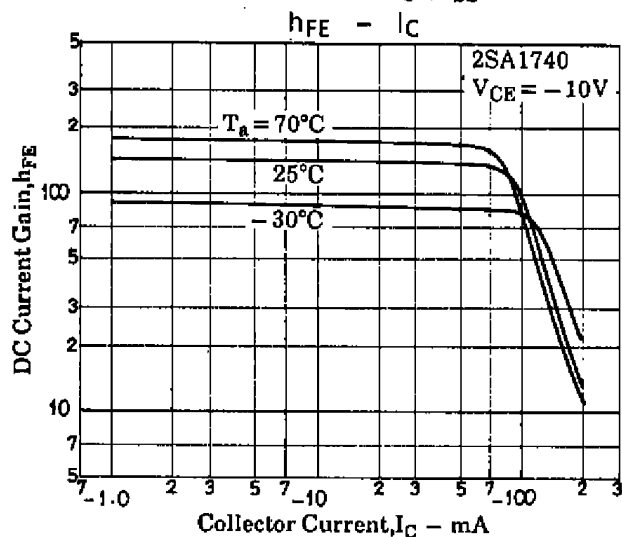
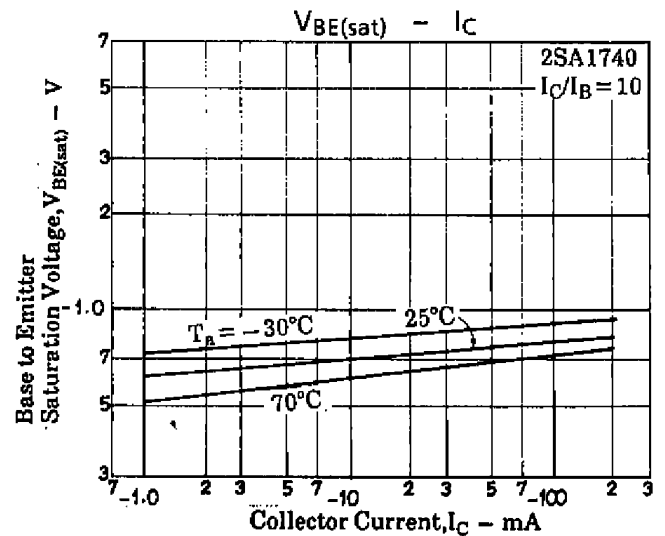
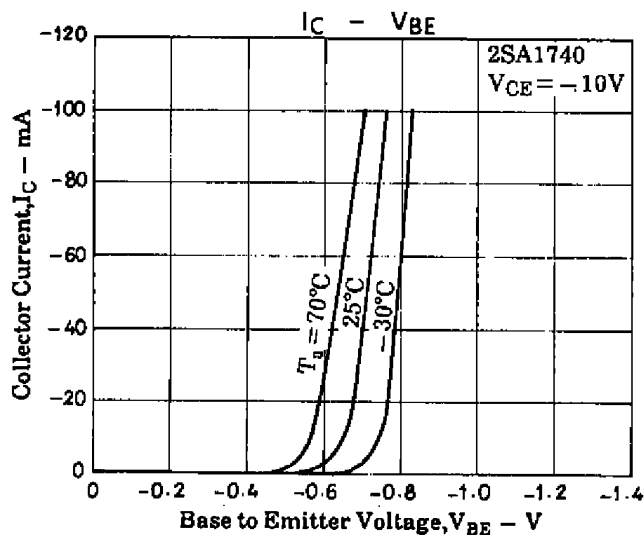
Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-400	V
Collector - Emitter Voltage	V_{CEO}	-400	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-200	mA
Collector Current - Pulse	I_{CP}	-400	
Collector Power Dissipation (Note.1)	P_C	1.3	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature range	T_{stg}	-55 to 150	

Note.1: Mounted on ceramic board 250mm²X0.8mm

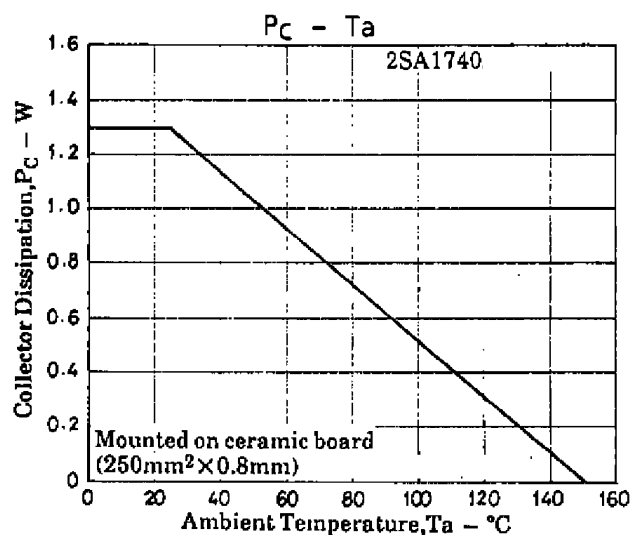
■ Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100 \mu A, I_E = 0$	-400			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 mA, I_B = 0$	-400			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu A, I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -300 V, I_E = 0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -4V, I_C = 0$			-100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -50 mA, I_B = -5mA$			-0.6	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -50 mA, I_B = -5mA$			-1	
DC current gain	h_{FE}	$V_{CE} = -10V, I_C = -50mA$	60		200	
Turn-on time	t_{on}	See Specified Test Circuit		0.25		us
Turn-off time	t_{off}			5		
Collector output capacitance	C_{ob}	$V_{CB} = -30V, f = 1MHz$		5		pF
Reverse Transfer	C_{re}	$V_{CB} = -30V, f = 1MHz$		4		
Transition frequency	f_T	$V_{CE} = -30V, I_C = -10mA$		70		MHz

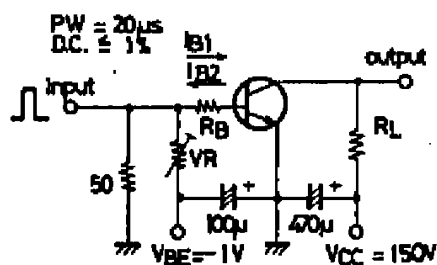
■ Typical Characteristics



■ Typical Characteristics



Switching Time Test Circuit



$$10I_{B1} = -10I_{B2} = I_C = 50mA$$

$$R_L = 3k\Omega, R_B = 200\Omega \text{ at } I_C = 50mA$$

For PNP, the polarity is reversed.

Unit (Resistance : Ω , Capacitance : F)

Attention

1, Any and all JGSEMI products described or contained herein do not have specifications that can handle applications that require extremely high levels of reliability, such as life-support systems, aircraft's control systems, or other applications whose failure can be reasonably expected to result in serious physical or material damage. Consult with your JGSEMI representative nearest you before using any JGSEMI products described or contained herein in such applications.

2, JGSEMI assumes no responsibility for equipment failures that result from using products at values that exceed, even momentarily, rated values (such as maximum ratings, operating condition ranges, or other parameters) listed in products specifications of any and all JGSEMI products described or contained herein.

3, Specifications of any and all JGSEMI products described or contained herein stipulate the performance, characteristics, and functions of the described products in the independent state, and are not guarantees of the performance, characteristics, and functions of the described products as mounted in the customer's products or equipment. To verify symptoms and states that cannot be evaluated in an independent device, the customer should always evaluate and test devices mounted in the customer's products or equipment.

4, In the event that any or all JGSEMI products (including technical data, services) described or contained herein are controlled under any of applicable local export control laws and regulations, such products must not be exported without obtaining the export license from the authorities concerned in accordance with the above law.

5, No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, or any information storage or retrieval system, or otherwise, without the prior written permission of JGSEMI Semiconductor CO., LTD.

6, 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 JGSEMI product that you intend to use.