Features
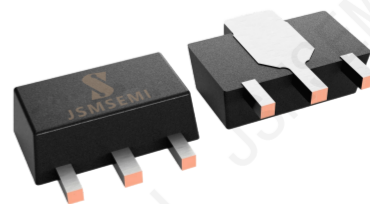
◆ PNP transistor High current output up to 5A

◆ Low Saturation Voltage

SOT-89

Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-6	V
Collector Current to Continuous	I_C	-5	A
Collector Dissipation	P_C	1.4-1.6	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55 to 150	℃

Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C=-100uA ,I_E=0	-60			V
Collector-emitter breakdown voltage	V_{CEO}	I_C= -10 mA , I_B=0	-60			V
Emitter-base breakdown voltage	V_{EBO}	I_E= -100 uA ,I_C=0	-6			V
Collector cut-off current	I_{CBO}	V_{CB}=-60 V , I_E=0			-100	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-6V , I_C=0			-100	μA
DC current gain	h_{FE}	V_{CE}= -2V, I_C= -1A	160		320	
		V_{CE}=-2V, I_C= -100mA	80			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-2A, I_B=- 0.2A			-320	mV
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-2A, I_B= -0.2A			-1.2	V
Transition frequency	f_T	V_{CE}=-10V, I_C=-0.1mA		130		MHz

Figure 1.   DC Current Gain

DG17060

$T_J = 125\,^{\circ}C$
$T_J = 25\,^{\circ}C$
$T_J = -40\,^{\circ}C$
$V_{CE} = 2V$

h_{FE}, 100, 10
0.01, 0.1, 1, I_C (A)

Figure 2.   DC Current Gain

DG17070

$T_J = 125\,^{\circ}C$
$T_J = 25\,^{\circ}C$
$T_J = -40\,^{\circ}C$
$V_{CE} = 5V$

h_{FE}, 100, 10
0.01, 0.1, 1, I_C (A)
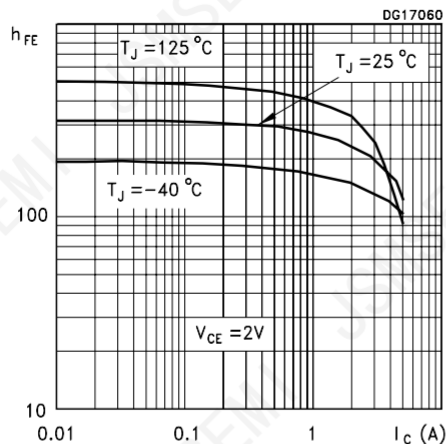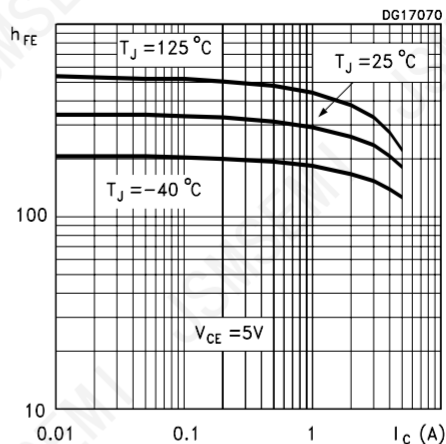
Figure 3.   Collector Emitter Saturation Voltage

DG17080

$V_{CE(sat)}$ (V)

$T_J = 25\,^{\circ}C$
$T_J = 125\,^{\circ}C$
$T_J = -40\,^{\circ}C$
$h_{FE} = 20$

0.01, 0.001
0.01, 0.1, 1, I_C (A)

Figure 4.   Base Emitter Saturation Voltage

DG17090

$V_{BE(sat)}$ (V)

$T_J = 25\,^{\circ}C$
$T_J = -40\,^{\circ}C$
$T_J = 125\,^{\circ}C$
$h_{FE} = 20$

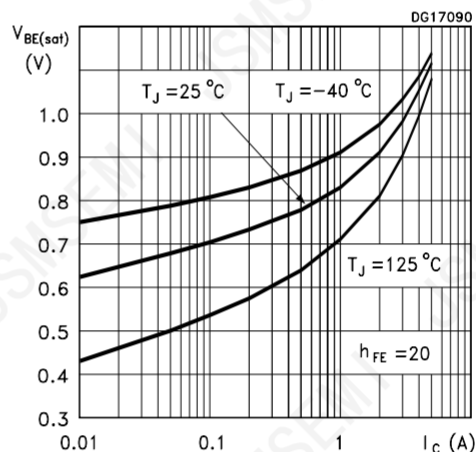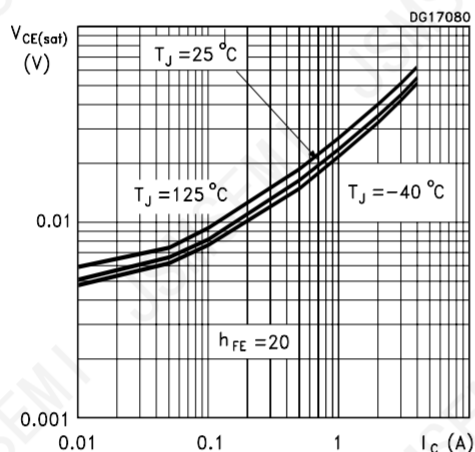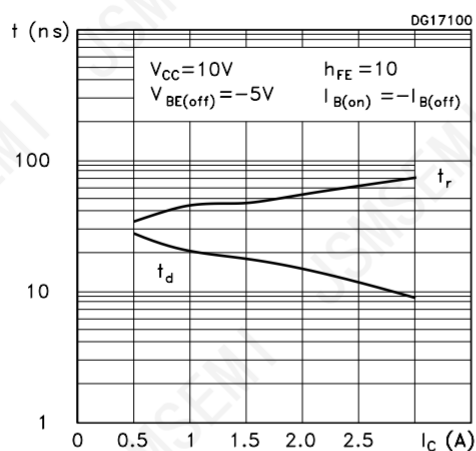1.0, 0.9, 0.8, 0.7, 0.6, 0.5, 0.4, 0.3
0.01, 0.1, 1, I_C (A)

Figure 5.   Resistive Load Switching Times

Figure 6.   Resistive LoadSwitching Times

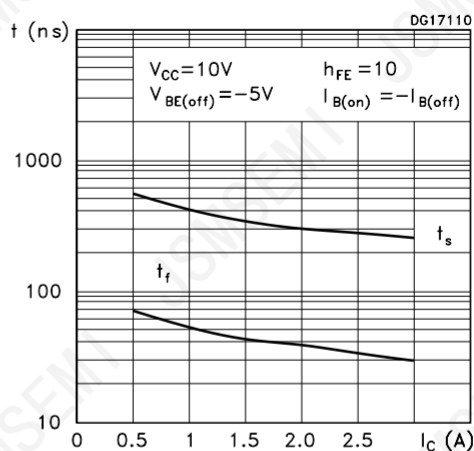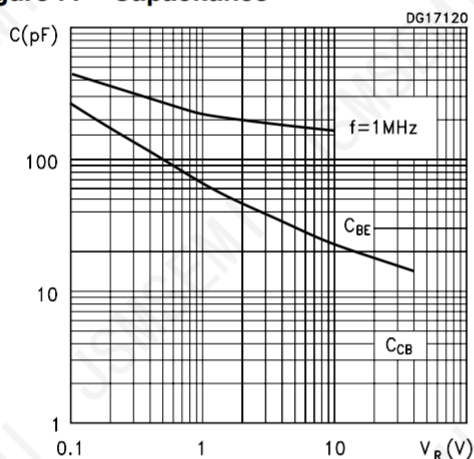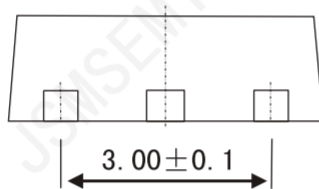Figure 7.   Capacitance

SOT-89

Unit:mm
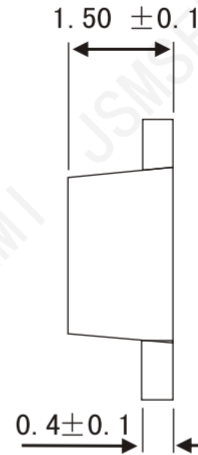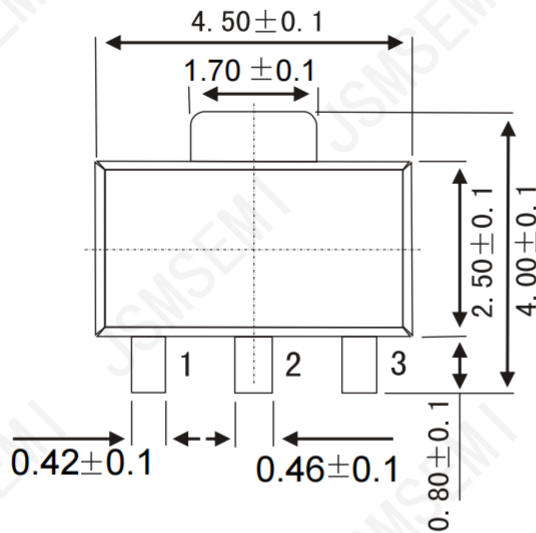
1.Base
2.Collector
3.Emitter

Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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 diferent 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 s ervice. 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 or visit www.jsmsemi.com