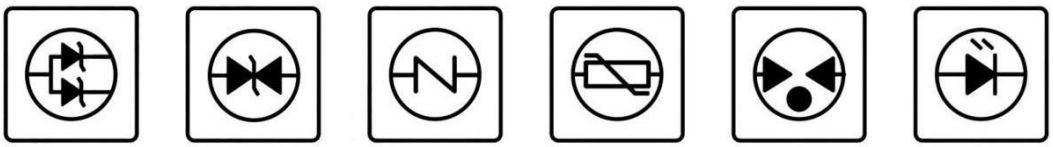
MSKSEMI 美森科
SEMICONDUCTOR



PBSS5350Z-MS

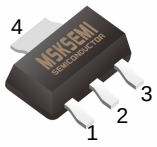
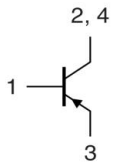
Product specification

PNP TRANSISTOR

FEATURE

- Low collector-to-emitter saturation voltage.
- Fast switching speed.
- Large current capacity and wide ASO.
- We declare that the material of product compliance with RoHS requirements and Halogen Free.

Reference News

SOT-223	Pin Configuration	MARKING
		W*** PB5350

MAXIMUM RATINGS(Ta = 25ºC)

Parameter	Symbol	Limits	Unit
Collector–Emitter Voltage	VCEO	-50	V
Collector–Base Voltage	VCBO	-60	V
Emitter–Base Voltage	VEBO	-6	V
Collector Current	IC	-3	A
Collector Current(Pulse)	ICP	-6	A

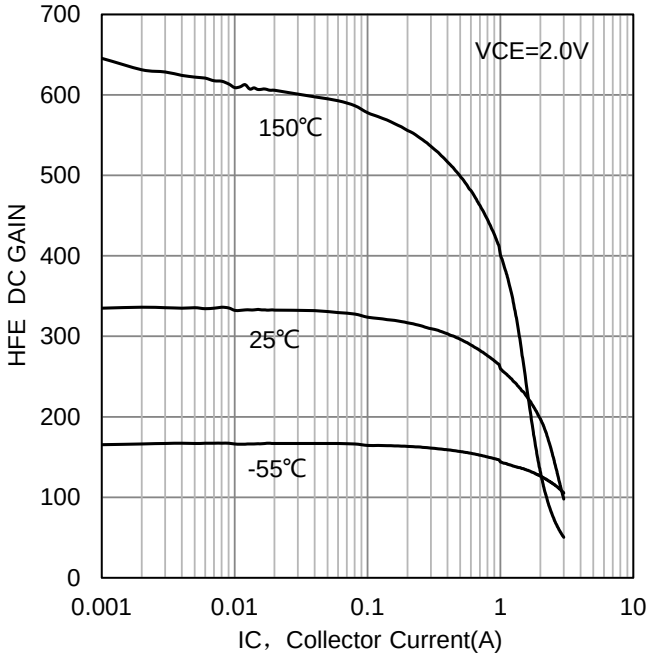
THERMAL CHARACTERISTICS

Parameter	Symbol	Limits	Unit
Total Device Dissipation, FR−4 Board (Note 1) @ TA = 25ºC	PD	833	mW
Thermal Resistance, Junction–to–Ambient(Note 1)	RΘJA	150	ºC/W

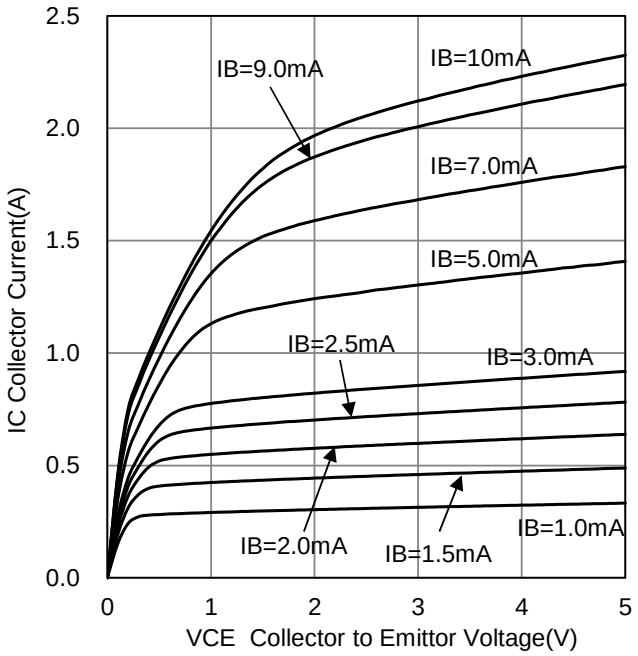
ELECTRICAL CHARACTERISTICS (Ta= 25℃)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Collector–Emitter Breakdown Voltage (IC = -1mA, IB = 0)	VBR(CEO)	-50	-	-	V
Collector–Base Breakdown Voltage (IC = −100 μA, IE = 0)	VBR(CBO)	-60	-	-	V
Emitter–Base Breakdown Voltage (IE = −100 μA, IC = 0)	VBR(EBO)	-6	-	-	V
Collector Cutoff Current (VCB = -40 V,IE = 0)	ICBO	-	-	-1	μA
Emitter Cut-off Current (VEB =-4V, IC =0)	IEBO	-	-	-1	μA
Collector-Emitter cutoff Current (VCE= -50V,IB=0)	ICEO	-	-	-10	μA
DC Current Gain (VCE =-2V, IC =-100mA) (VCE =-2V, IC =-3A)	HFE	 200 35	 - -	 400 -	
Collector–Emitter Saturation Voltage (IC =-2A, IB =-100mA)	VCE(sat)	-	-0.35	-0.7	V
Base-Emitter saturation voltage (IC =-2A, IB =-100mA)	VBE(sat)	-	-0.94	-1.2	V
Transition Frequency (VCE =-10V, IC =-50mA)	fT	-	150	-	MHz
Collector Output Capacitance (VCB =-10V, f=1MHz)	Cob	-	39	-	pF

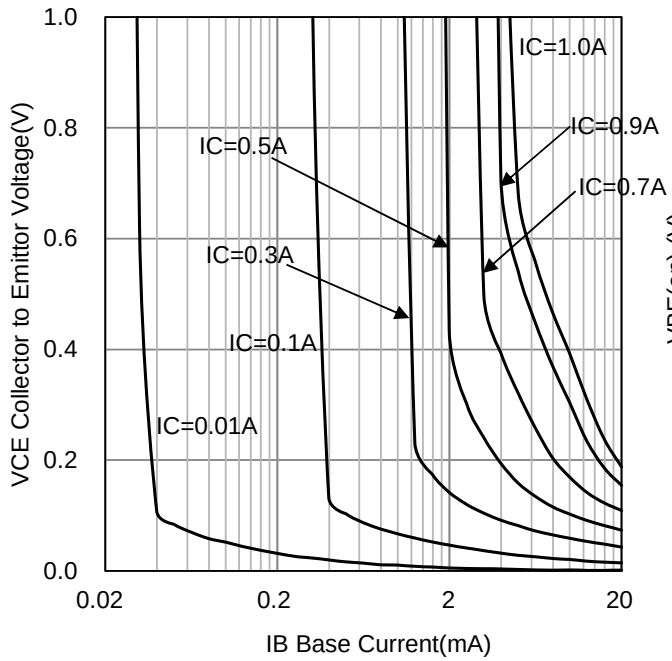
5.ELECTRICAL CHARACTERISTICS CURVES



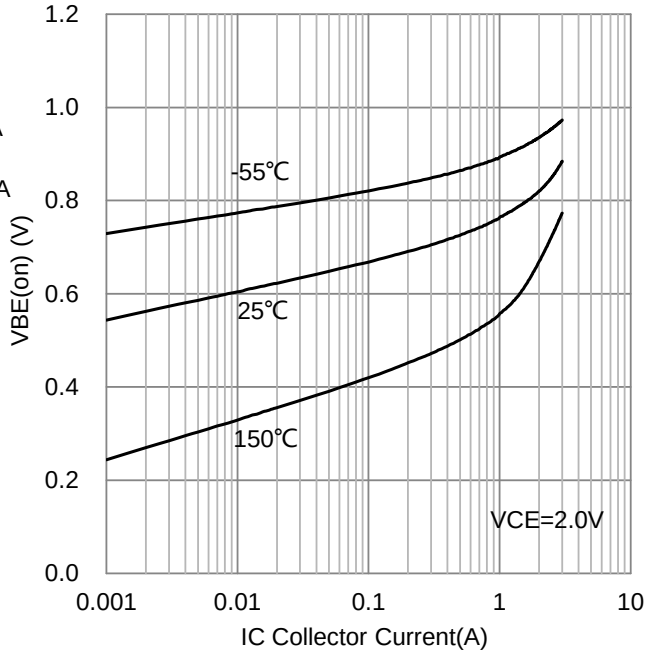
HFE vs. IC



IC vs. VCE

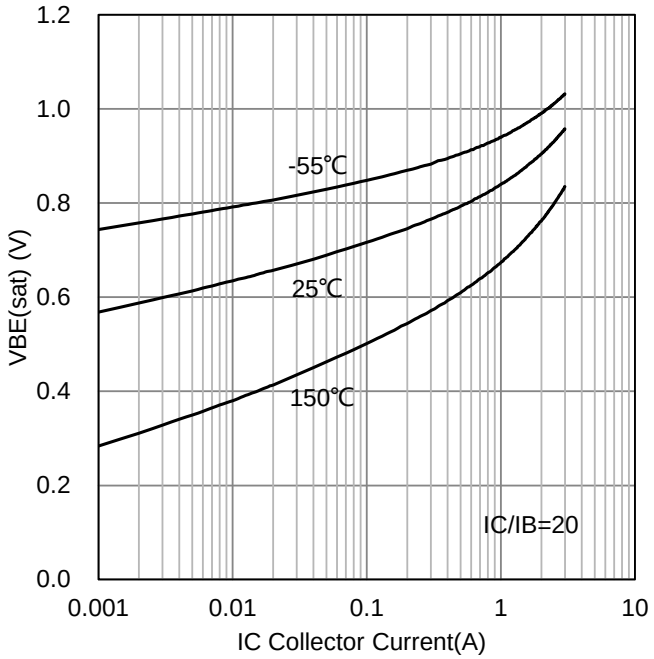


VCE vs. IB

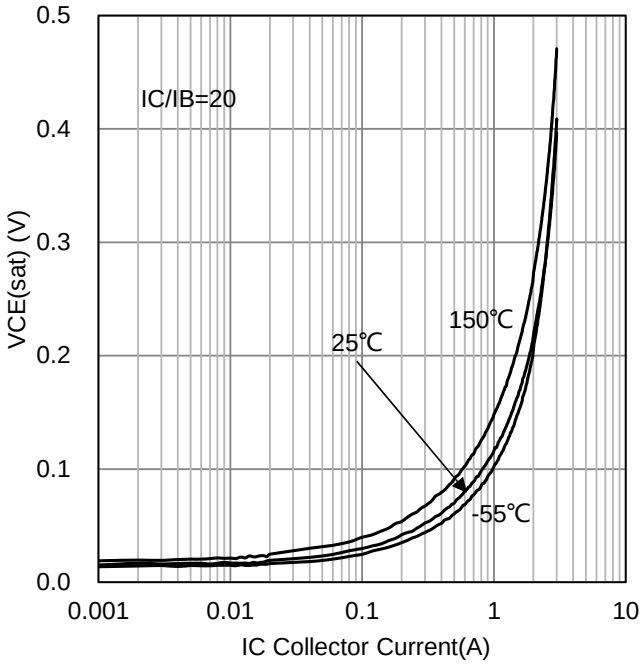


VBE(on) vs. IC

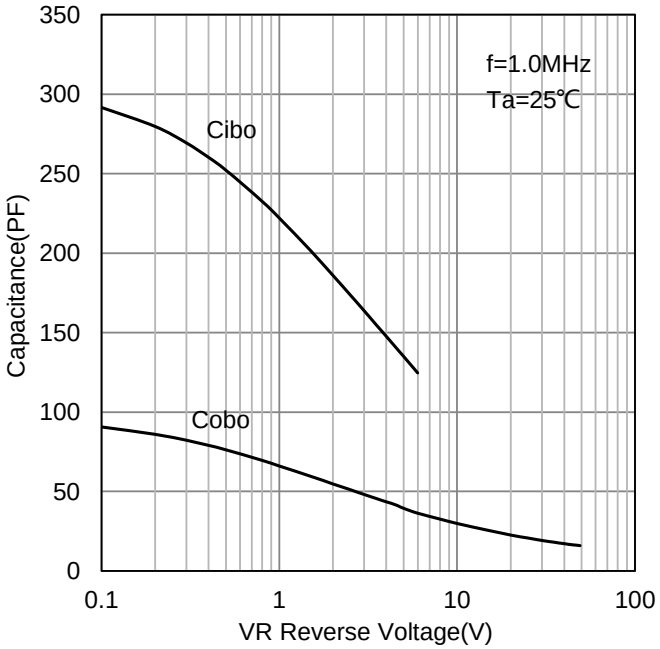
6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



VBE(sat) vs. IC

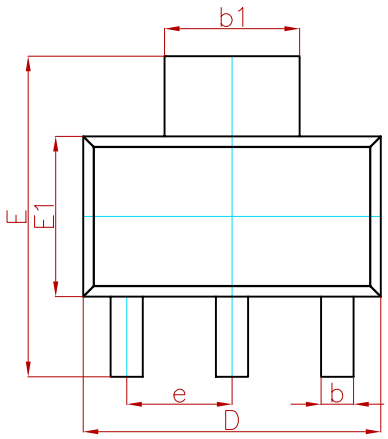


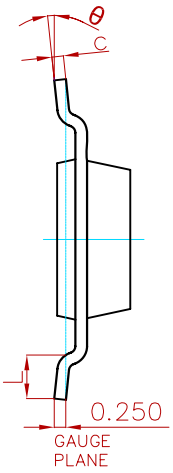
VCE(sat) vs. IC

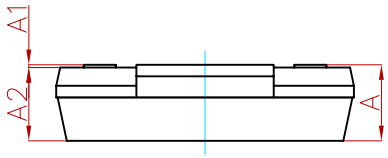


Capacitance

PACKAGE MECHANICAL DATA

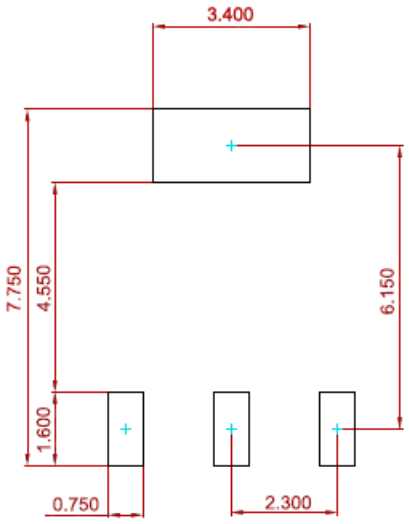






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	——	1.800	——	0.071
A1	0.020	0.100	0.001	0.004
A2	1.500	1.700	0.059	0.067
b	0.660	0.840	0.026	0.033
b1	2.900	3.100	0.114	0.122
c	0.230	0.350	0.009	0.014
D	6.300	6.700	0.248	0.264
E	6.700	7.300	0.264	0.287
E1	3.300	3.700	0.130	0.146
e	2.300(BSC)		0.091(BSC)	
L	0.750	——	0.030	——
θ	0°	10°	0°	10°

Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:±0.050mm.
3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
PBSS5350Z-MS	SOT-223	1000

Attention

■ Any and all MSKSEMI Semiconductor 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 and/or material damage. Consult with your MSKSEMI Semiconductor representative nearest you before using any MSKSEMI Semiconductor products described or contained herein in such applications.

■ MSKSEMI Semiconductor 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 specificationsof any andall MSKSEMI Semiconductor products described orcontained herein.

■ Specifications of any and all MSKSEMI Semiconductor 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'sproducts orequipment.

■ MSKSEMI Semiconductor. strives to supply high-quality high-reliability products. However, any and all semiconductor products fail with someprobability. It is possiblethat these probabilistic failures could give rise to accidents or events that could endanger human lives, that could give rise to smoke or fire, or that could cause damage to other property. When designing equipment, adopt safety measures so that these kinds of accidents or events cannot occur. Such measures include but are not limited to protective circuits anderror prevention circuitsfor safedesign, redundant design, and structural design.

■ In the event that any or all MSKSEMI Semiconductor 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 theauthorities concerned in accordance with the above law.

■ 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 MSKSEMI Semiconductor.

■ Information (including circuit diagrams and circuit parameters) herein is for example only ; it is not guaranteed for volume production. MSKSEMI Semiconductor believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringementsof intellectual property rights or other rightsof third parties.

■ Any and all information described or contained herein are subject to change without notice due to product/technology improvement, etc. Whendesigning equipment, referto the "Delivery Specification" for the MSKSEMI Semiconductor productthat you intend to use.