# MSKSEMI 美森科













ESD

T١

TSS

MOV

GDT

PIFD

S8550

Product specification





## TRANSISTOR (PNP)

## **FEATURES**

- Complimentary to S8050
- Collector current: IC=0.5A

#### **Reference News**

PACKAGE OUTLINE		MARKING
1 2	1. BASE 2. EMITTER 3.COLLECTOR	2TY
SOT-23		

MAXIMUM RATINGS (Ta=25<sup>°</sup>C unless otherwise noted)

Symbol	Parameter	Value	Unit
V <sub>CBO</sub>	Collector-Base Voltage	-40	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-25	V
V <sub>EBO</sub>	Emitter-Base Voltage	-5	V
lc	Collector Current -Continuous	-0.5	Α
Pc	Collector Dissipation	0.3	W
Tj	Junction Temperature	150	$^{\circ}$
T <sub>stg</sub>	Storage Temperature	-55-150	°C

# **ELECTRICAL CHARACTERISTICS (Ta=25℃ unless otherwise specified)**

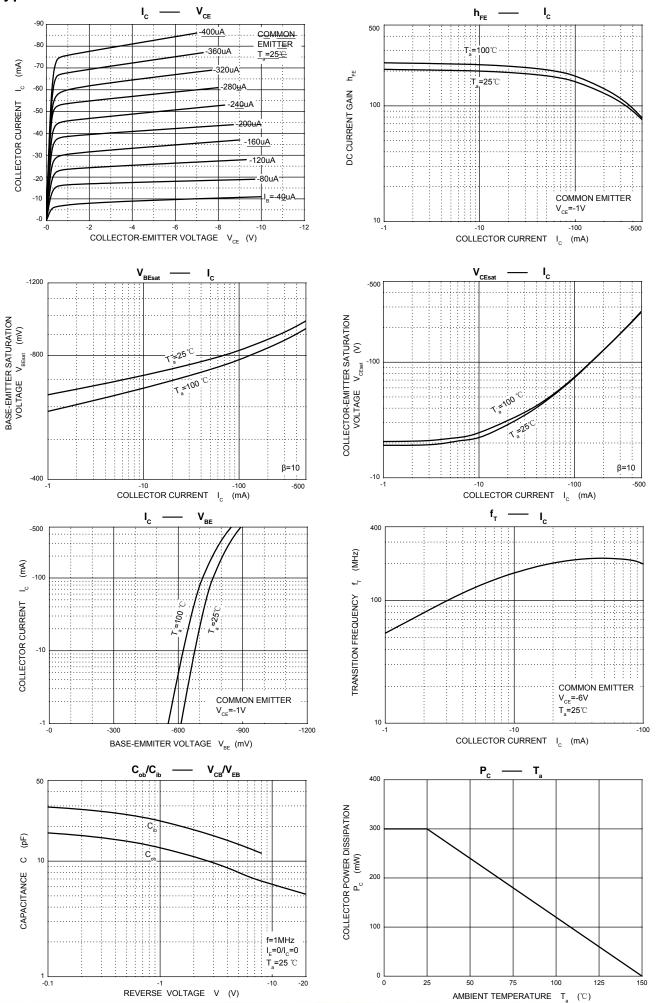
Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	V <sub>(BR)</sub> CBO	I <sub>C</sub> = -100μA, I <sub>E</sub> =0	-40		V
Collector-emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> =-1mA, I <sub>B</sub> =0	-25		V
Emitter-base breakdown voltage	V <sub>(BR)EBO</sub>	l <sub>E</sub> = -100μA, I <sub>C</sub> =0	-5		V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> = -40V, I <sub>E</sub> =0		-0.1	μΑ
Collector cut-off current	I <sub>CEO</sub>	V <sub>CE</sub> = -20V, I <sub>B</sub> =0		-0.1	μA
Emitter cut-off current	I <sub>ЕВО</sub>	V <sub>EB</sub> = -3V, I <sub>C</sub> =0		-0.1	μA
DC automant main	h <sub>FE(1)</sub>	V <sub>CE</sub> = -1V, I <sub>C</sub> = -50mA	120	400	
DC current gain	h <sub>FE(2)</sub>	V <sub>CE</sub> = -1V, I <sub>C</sub> = -500mA	50		
Collector-emitter saturation voltage	V <sub>CE</sub> (sat)	I <sub>C</sub> =-500mA, I <sub>B</sub> = -50mA		-0.6	V
Base-emitter saturation voltage	V <sub>BE</sub> (sat)	lc=-500mA, I <sub>B</sub> = -50mA		-1.2	V
Transition frequency	f⊤	V <sub>CE</sub> = -6V, I <sub>C</sub> = -20mA f=30MHz	150		MHz

# **CLASSIFICATION OF hFE(1)**

Rank	L	Н
Range	120-200	200-350

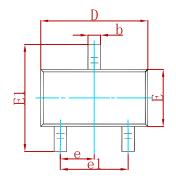


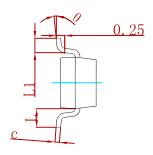
# **Typical Characteristics**

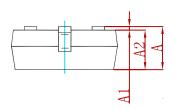




# PACKAGE MECHANICAL DATA

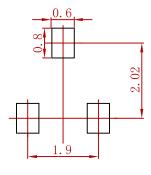






Commelle ed	Dimensions In Millimeters		Dimensions In Inches		
Symbol	Min	Max	Min	Max	
Α	0.900	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.080	0.150	0.003	0.006	
D	2.800	3.000	0.110	0.118	
E	1.200	1.400	0.047	0.055	
E1	2.250	2.550	0.089	0.100	
е	0.950	0.950 TYP		7 TYP	
e1	1.800	2.000	0.071	0.079	
L	0.550 REF		0.022	REF	
L1	0.300	0.500	0.012	0.020	
θ	0°	8°	0°	8°	

# **Suggested Pad Layout**



#### Note:

- 1.Controlling dimension:in millimeters.
- 2.General tolerance:± 0.05mm.
- 3. The pad layout is for reference purposes only.

## **REEL SPECIFICATION**

P/N	PKG	QTY
S8550	SOT-23	3000



#### **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 specifications of any and all MSKSEMI Semiconductor products described or contained 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 or equipment.
- 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 infringements of intellectual property rights or other rights of 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.