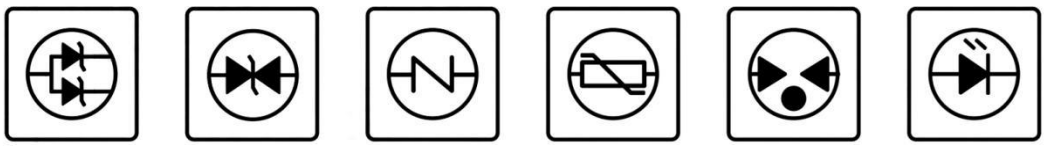
MSKSEMI
SEMICONDUCTOR



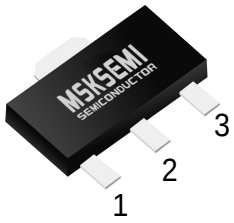
Product data sheet

FEATURES

- High Collector Current
- Complementary to SS8050

SOT-89

1. BASE
2. COLLECTOR
3. EMITTER



Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-25	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-1.5	A
P_C	Collector Power Dissipation	0.5	W
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	250	℃/W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

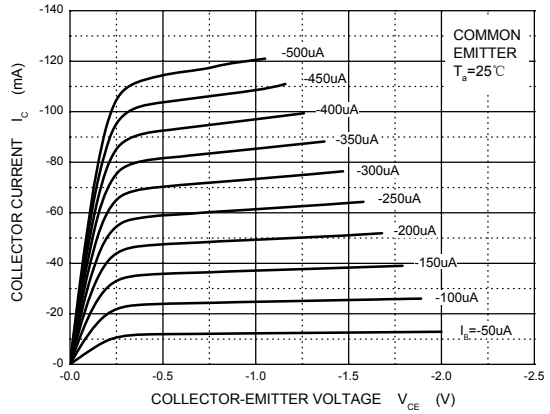
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA, I_E=0	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA, I_B=0	-25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA, I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-40V, I_E=0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V, I_C=0			-100	nA
DC current gain	$h_{FE(1)}$	V_{CE}=-1V, I_C=-100mA	120		400	
	$h_{FE(2)}$	V_{CE}=-1V, I_C=-800mA	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-800mA, I_B=-80mA			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-800mA, I_B=-80mA			-1.2	V
Base-emitter voltage	V_{BE}	V_{CE}=-1V, I_C=-10mA			-1	V
Transition frequency	f_T	V_{CE}=-10V,I_C=-50mA , f=30MHz	100			MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V, I_E=0, f=1MHz			20	pF

CLASSIFICATION OF $h_{FE(1)}$

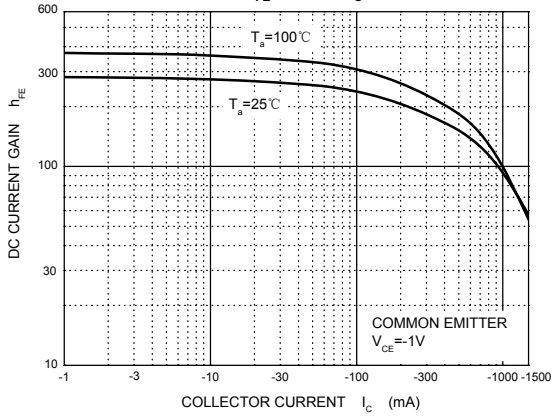
RANK	L	H	J
RANGE	120 – 200	200 – 350	300 – 400

Typical Characteristics

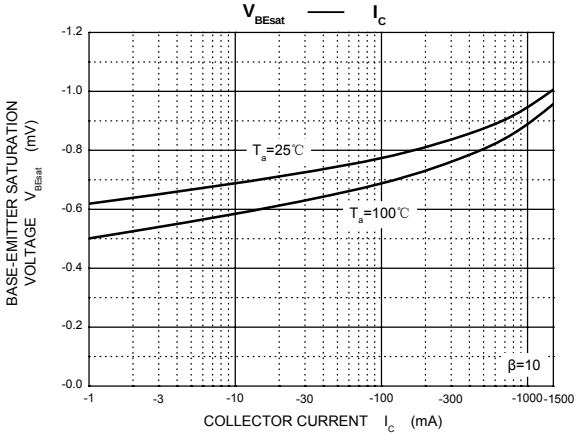
Static Characteristic



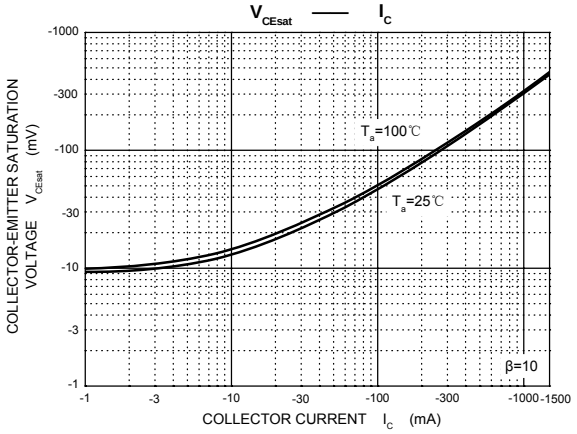
h_{FE} —— I_C



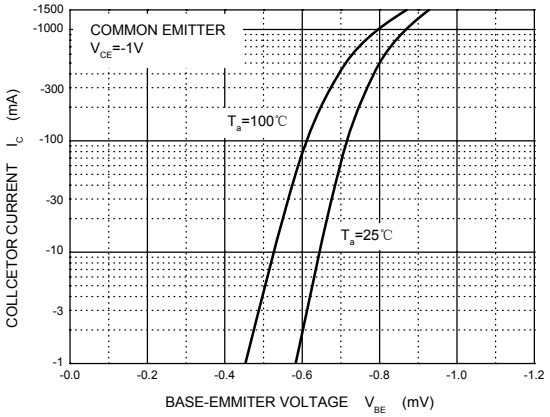
V_{BEsat} —— I_C



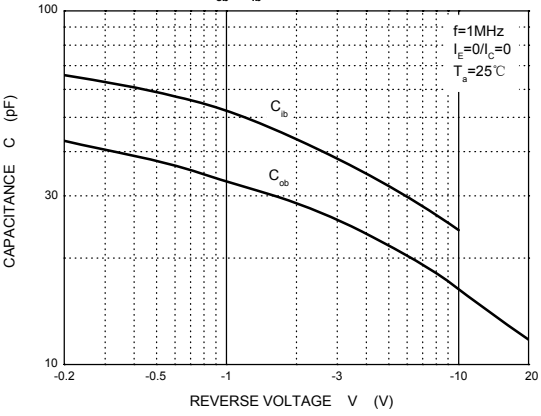
V_{CEsat} —— I_C



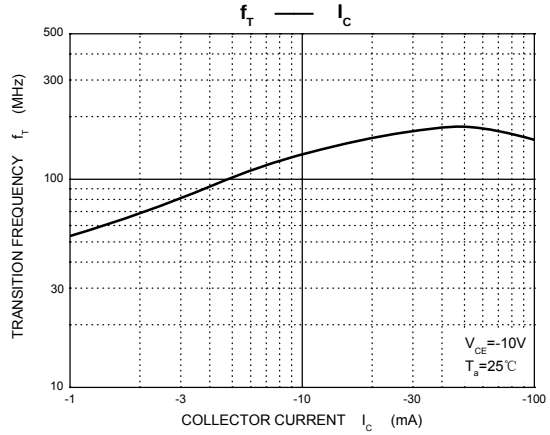
V_{BE} —— I_C



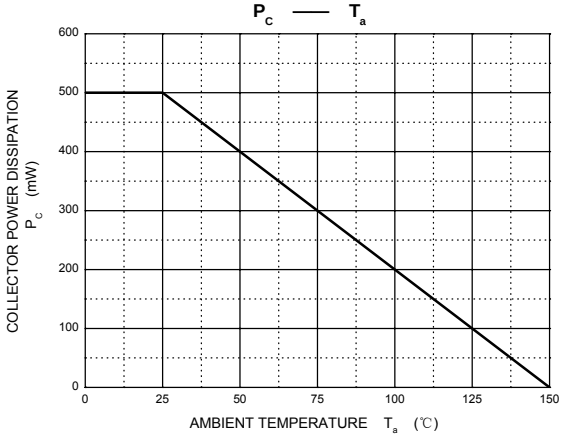
C_{ob} / C_{ib} —— V_{CB} / V_{EB}



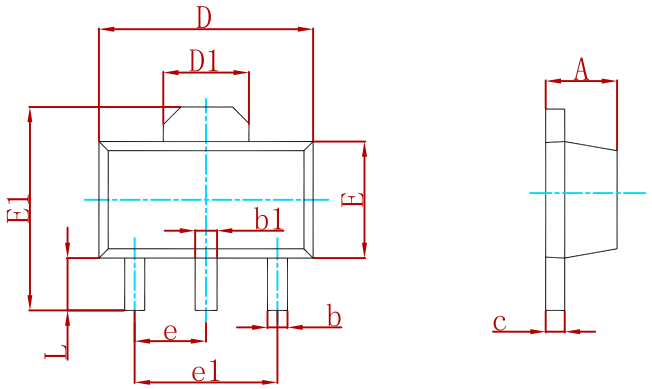
f_T —— I_C



P_C —— T_a

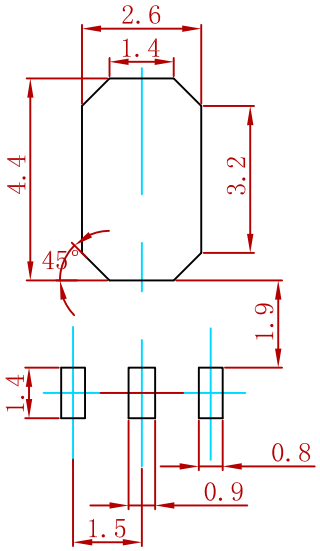


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

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
SS8550	SOT-89	1000

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