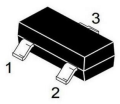
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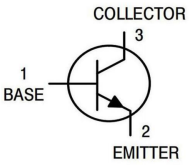
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SOT-23 Plastic-Encapsulate Transistors

SS8050 TRANSISTOR (NPN)



SOT-23



FEATURES

Complimentary to SS8550

MARKING: Y1

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

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	1.5	A
P_C	Collector Power Dissipation	300	mW
$R_{\Theta JA}$	Thermal Resistance From Junction To Ambient	417	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

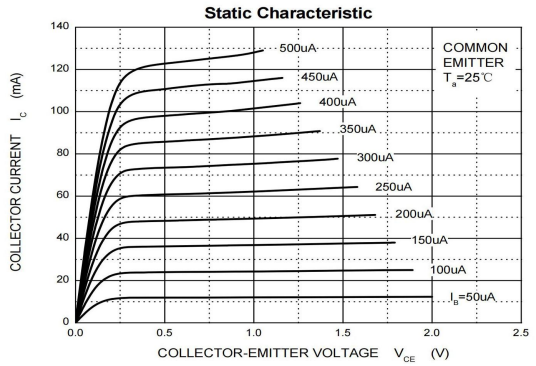
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C= 100μA, I_E=0	40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= 0.1mA, I_B=0	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=100μA, I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=40V, I_E=0			0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}=20V, I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}= 5V, I_C=0			0.1	μA
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
Transition frequency	f_T	V_{CE}=10V, I_C= 50mA f=30MHz	100			MHz

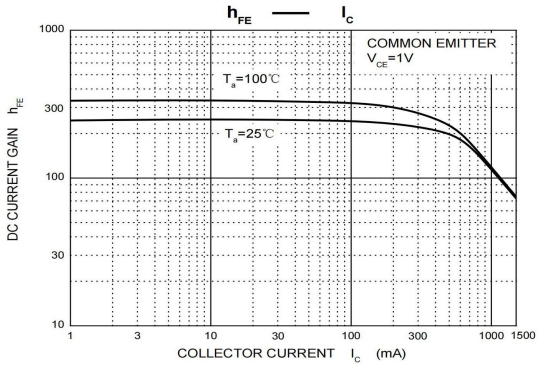
CLASSIFICATION OF $h_{FE(1)}$

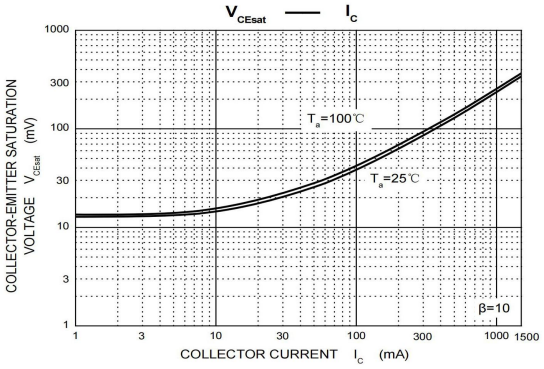
Rank	L	H	J
Range	120-200	200-350	300-400

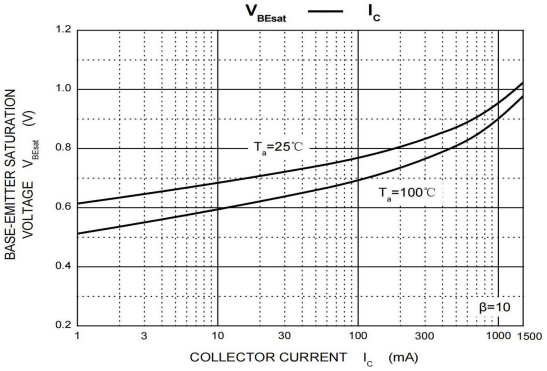
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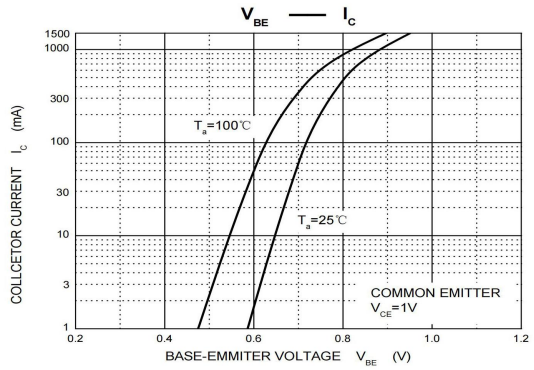
Typical Characteristics

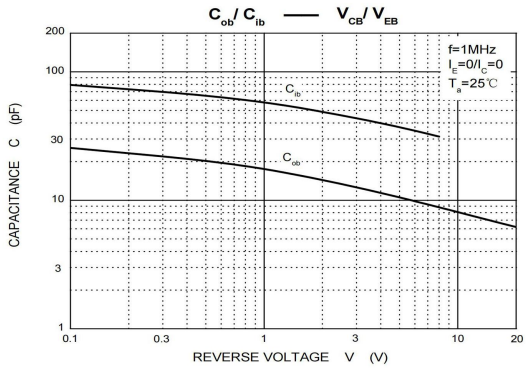


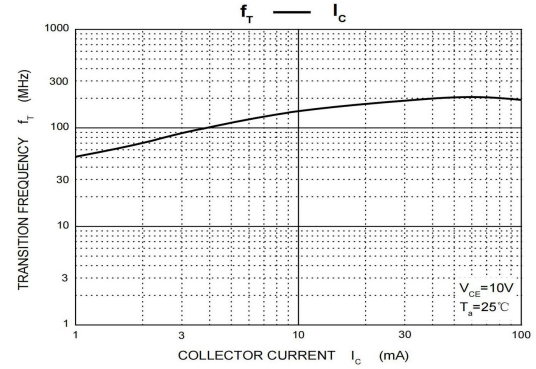


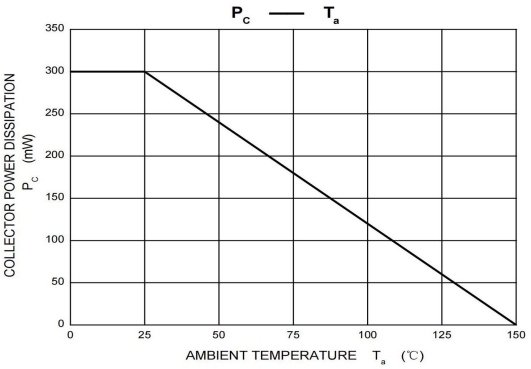










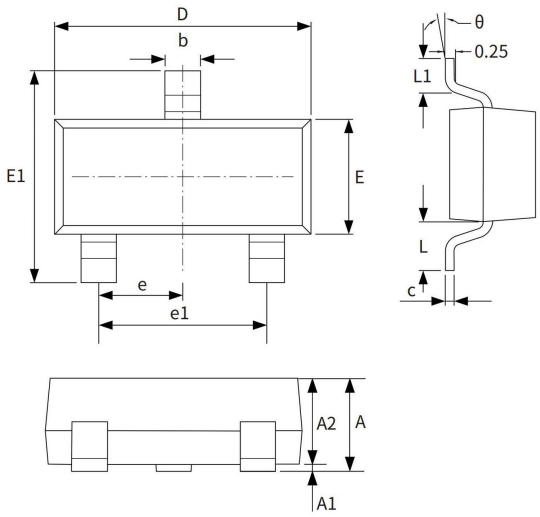


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Ordering Information

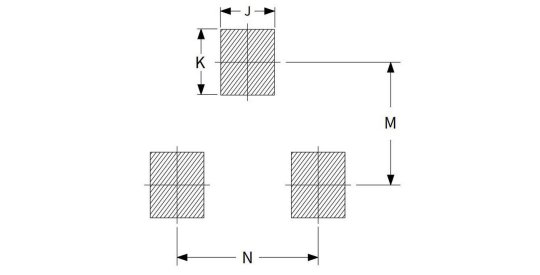
PACKAGE	PACKAGE CODE	UNIT WEIGHT(g)	REEL(pcs)	BOX(pcs)	CARTON(pcs)	DELIVERY MODE
SOT-23	R1	0.008	3000	30000	240000	7''

Package Outline Dimensions (SOT-23)



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.90	1.15	0.035	0.045
A1	-	0.10	-	0.004
A2	0.90	1.05	0.035	0.041
b	0.30	0.50	0.012	0.020
c	0.10	0.20	0.004	0.008
D	2.80	3.00	0.110	0.118
E	1.20	1.40	0.047	0.055
E1	2.25	2.55	0.089	0.100
e	0.950TYP		0.037TYP	
e1	1.80	2.00	0.071	0.079
L	0.550REF		0.022REF	
L1	0.30	0.50	0.012	0.020
θ	-	8°	-	8°

Suggested Pad Layout



Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
J	0.75	0.85	0.030	0.033
K	0.85	0.95	0.033	0.037
M	1.95	2.05	0.077	0.081
N	1.85	1.95	0.073	0.077