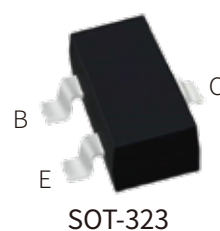


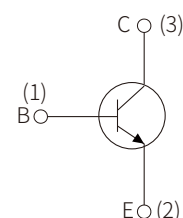
FEATURES

- | SOT-323 Package
- | Epoxy meets UL-94 V-0 flammability rating and halogen free



APPROVALS

RoHS	Compliance with 2011/65/EU
HF	Compliance with IEC61249-2-21:2003



Schematic Symbol

MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	25	
Emitter-Base Voltage	V_{EBO}	5	
Collector Current	I_C	1500	mA
Collector Power Dissipation	P_C	250	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	500	$^{\circ}\text{C}/\text{W}$
Junction Temperature Range	T_J	-55~+150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55~+150	$^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS (T_A=25°C)

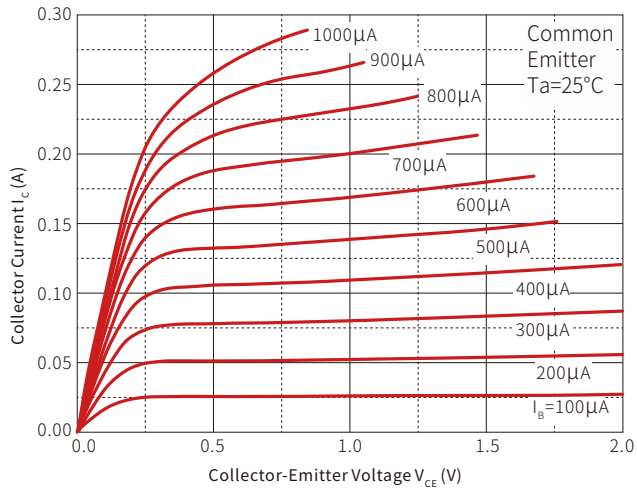
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	40			V
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	I _C =0.1mA, I _B =0	25			
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5			
Collector cut-off current	I _{CBO}	V _{CB} =40V, I _E =0			100	nA
Collector cut-off current	I _{CEO}	V _{CE} =20V, I _B =0			100	
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0			100	
DC Current Gain	h _{FE}	V _{CE} =1V, I _C =100mA	120		400	
		V _{CE} =1V, I _C =800mA	40			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =800mA, I _B =80mA			0.50	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =800mA, I _B =80mA			1.20	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			15	pF

CLASSIFICATION OF H_{FE(1)}

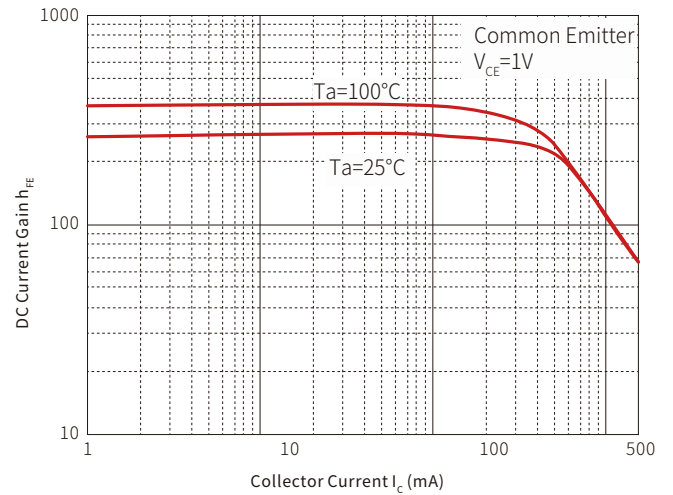
Rank	L	H	J
Range	120-200	200-350	300-400

TYPICAL CHARACTERISTICS

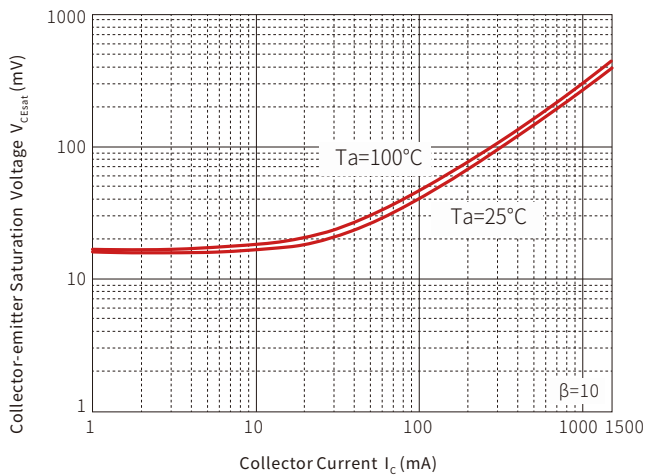
Static Characteristic



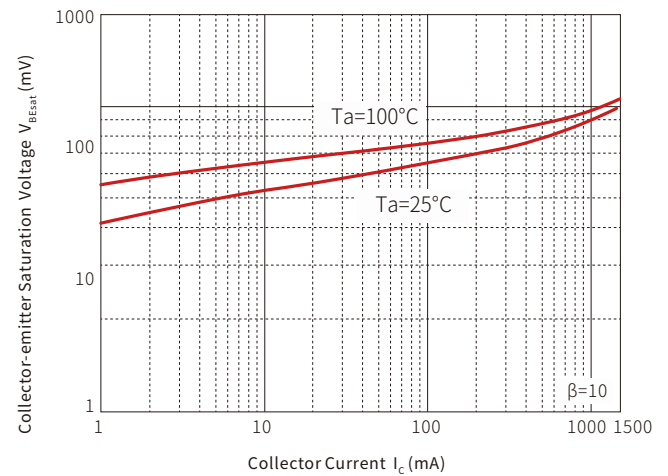
h_{FE} — I_C

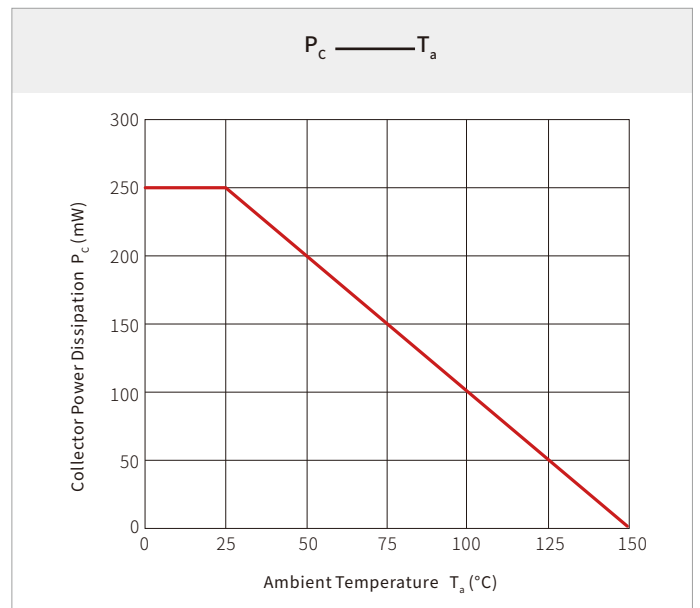
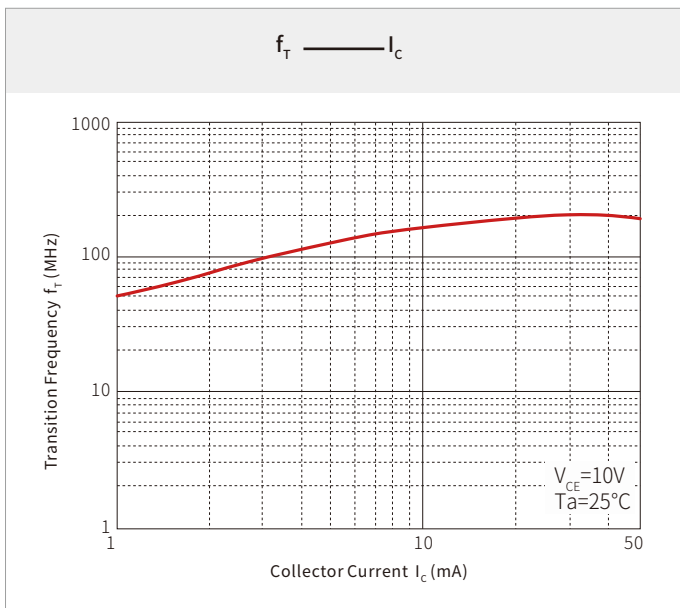
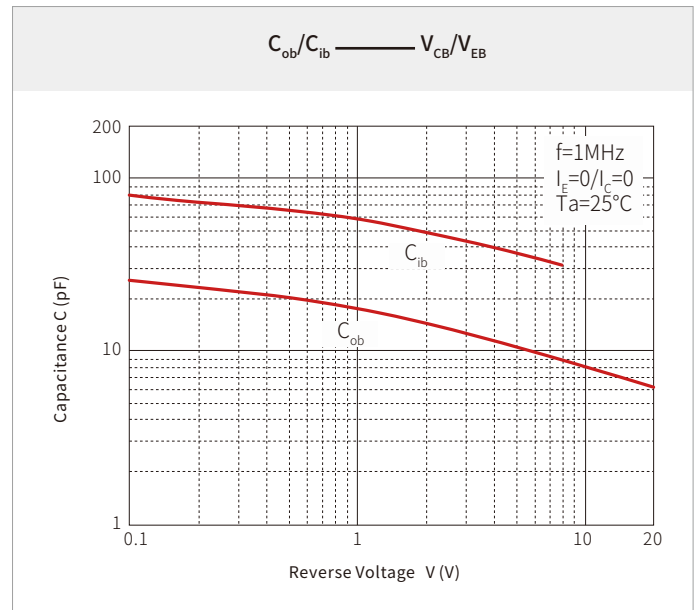
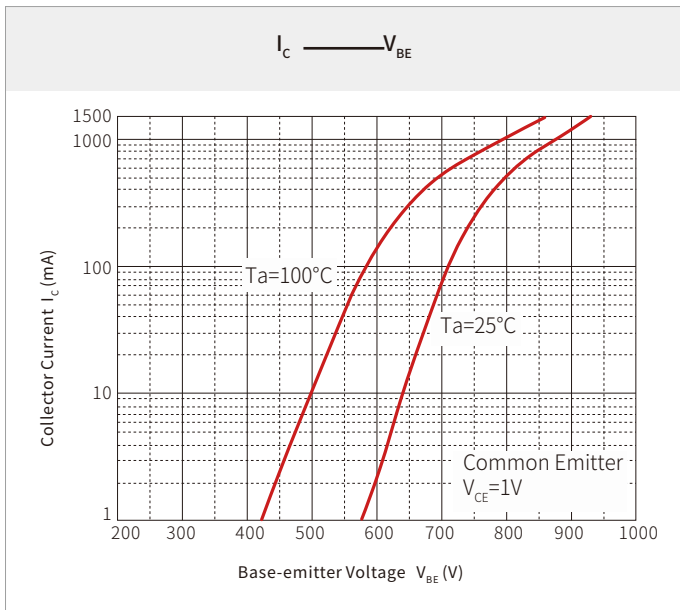


$V_{CE\text{ sat}}$ — I_C



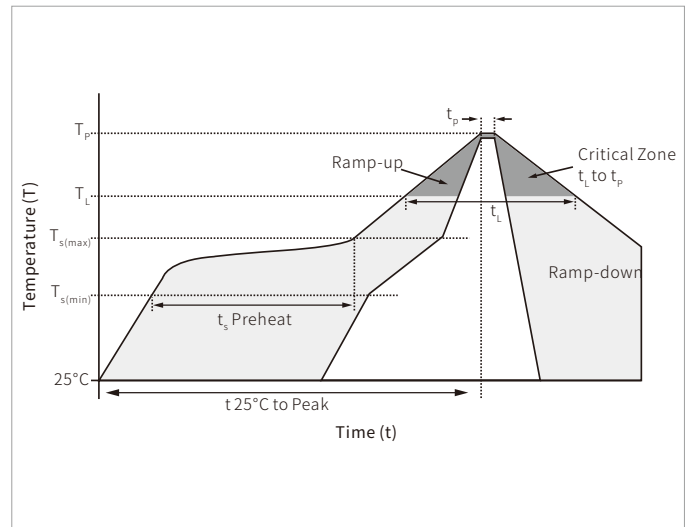
$V_{BE\text{ sat}}$ — I_C



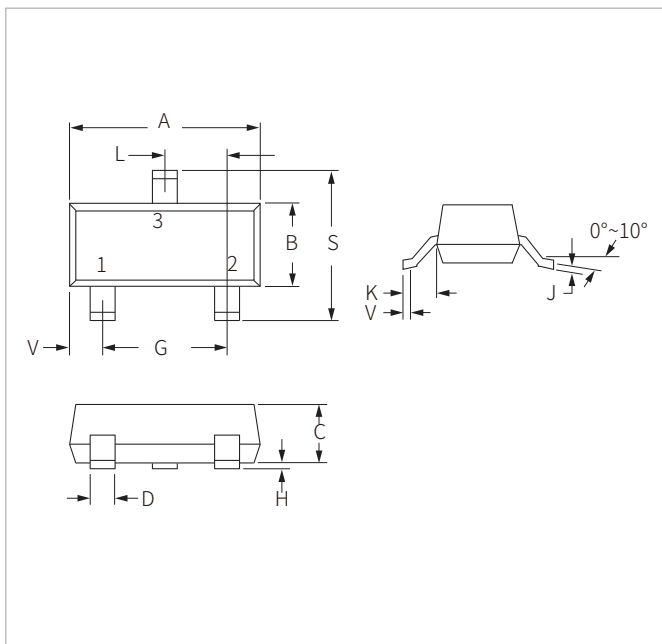


SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		260°C



SOT-323 PACKAGE INFORMATION



Ref.	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.00	2.20	0.079	0.087
B	1.15	1.35	0.045	0.053
C	0.90	1.00	0.035	0.039
D	0.20	0.40	0.008	0.016
G	1.20	1.40	0.047	0.055
H	0.00	0.10	0.000	0.004
J	0.08	0.15	0.003	0.006
K	0.525REF		0.021REF	
L	0.650TYP		0.026TYP	
S	2.15	2.45	0.085	0.096
V	0.26	0.46	0.010	0.018

ORDERING INFORMATION

Part Number	Component Package	Marking	QTY/Reel	Reel Size
SS8050W	SOT-323	Y1	3000PCS	7"

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By QR Code

Website



Wechat

To find your local partner within Semiware's global website: www.semiware.com

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