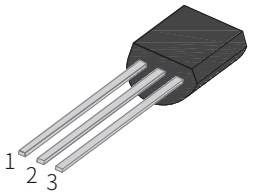
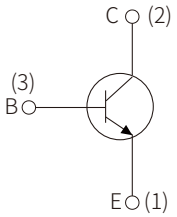
FEATURES

- TO-92 Package
- Epoxy meets UL-94 V-0 flammability rating and halogen free



TO-92



Schematic Symbol

APPROVALS

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

MAXIMUM RATINGS (T_A=25°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	500	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature Range	T_J	-55~+150	°C
Storage Temperature Range	T_{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C)

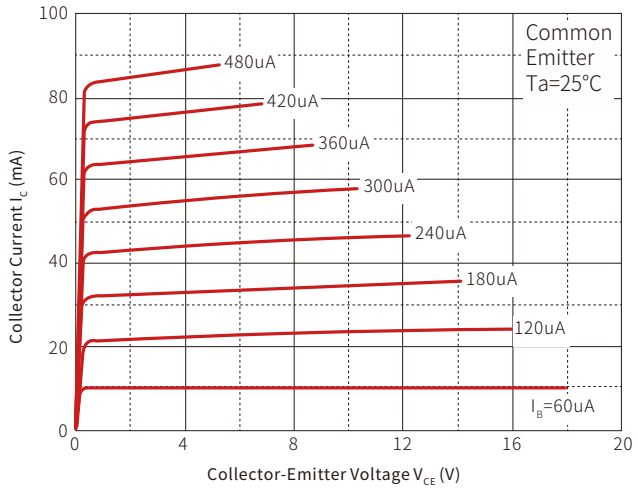
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	40			V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=1mA,I_B=0	25			
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=100μA,I_C=0	5			
Collector cut-off current	I_{CBO}	V_{CB}= 40V, I_E=0			0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= 20V, I_B=0			0.1	
Emitter cut-off current	I_{EBO}	V_{EB}=5V, I_C=0			0.1	
DC Current Gain	h_{FE}	V_{CE}=1V, I_C=50mA	120		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=500mA, I_B=50mA			0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=500mA, I_B=50mA			1.5	V
Transition frequency	f_T	V_{CE}=6V, I_C=20mA,f=30MHz	150			MHz

CLASSIFICATION OF $H_{FE(1)}$

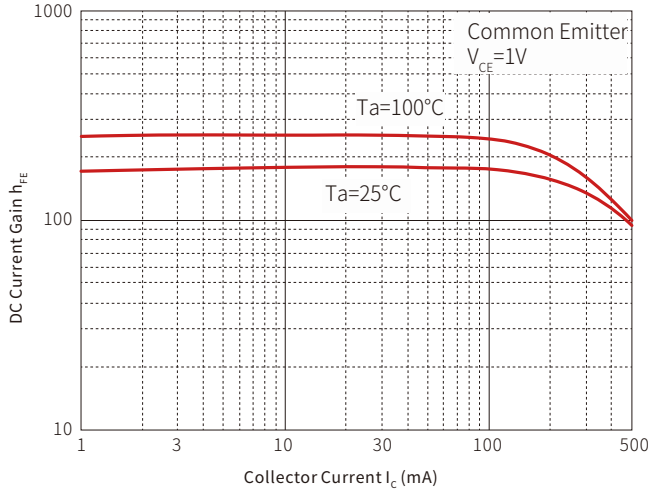
Rank	L	H	J
Range	120-200	200-350	300-400

TYPICAL CHARACTERISTICS

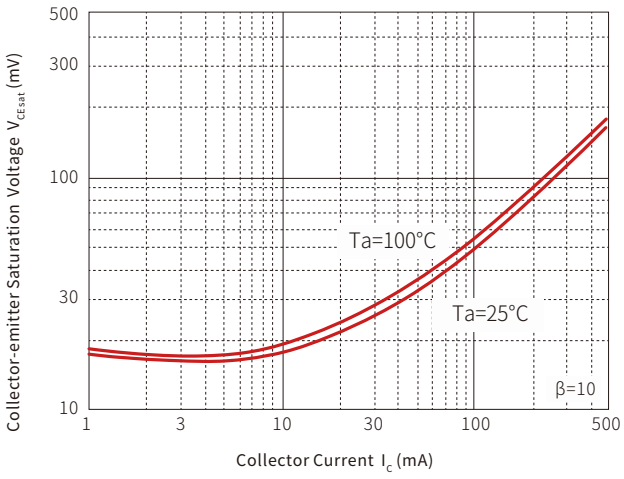
Static Characteristic



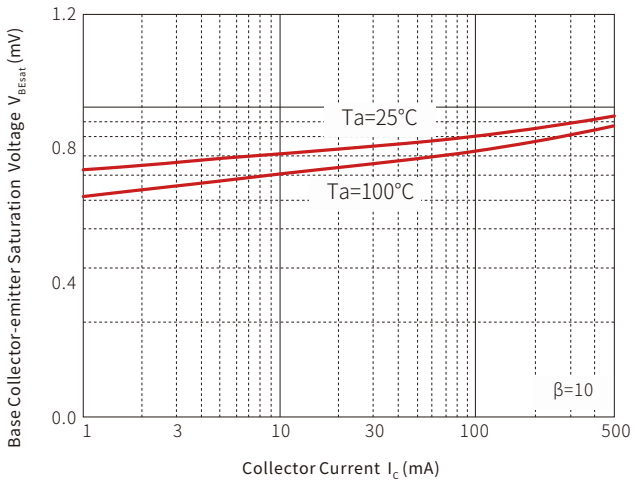
h_{FE} ——— I_C



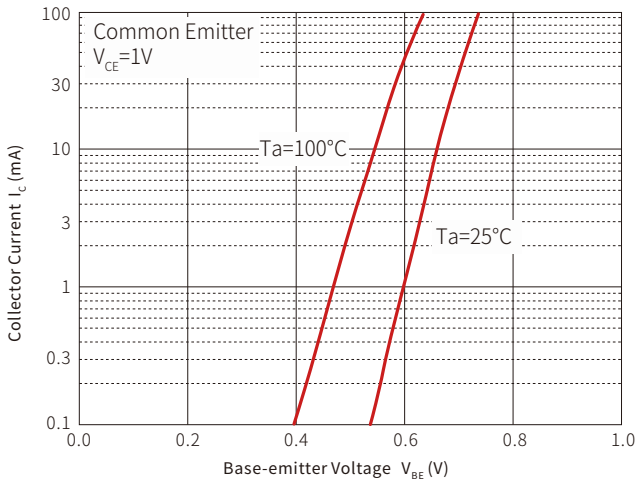
$V_{CE\ sat}$ ——— I_C



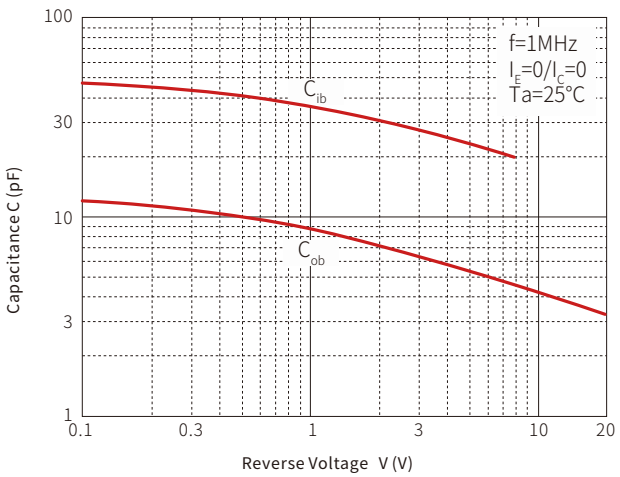
$V_{BE\ sat}$ ——— I_C



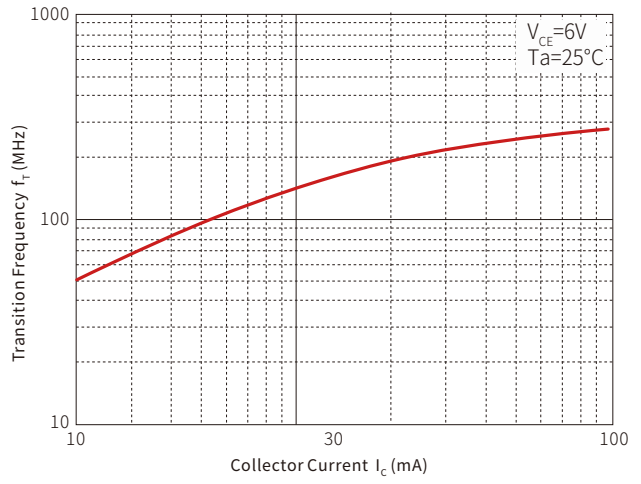
I_C ——— V_{BE}



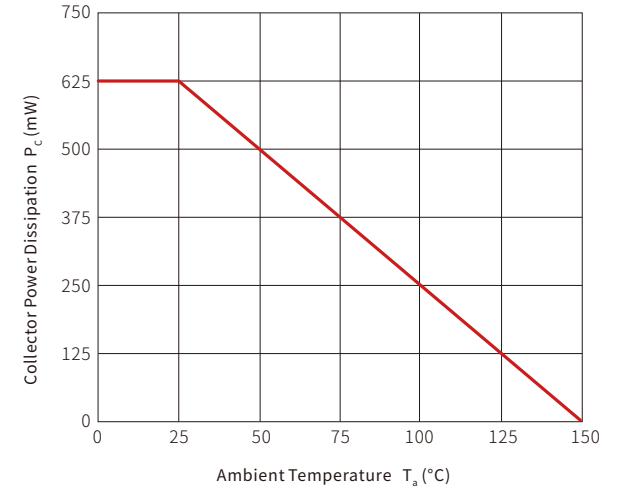
C_{ob}/C_{ib} ——— V_{CB}/V_{EB}



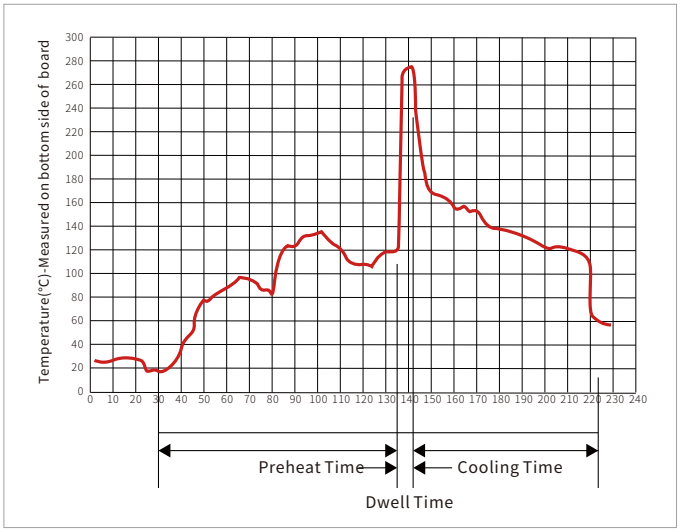
f_T ——— I_C



P_C ——— T_a

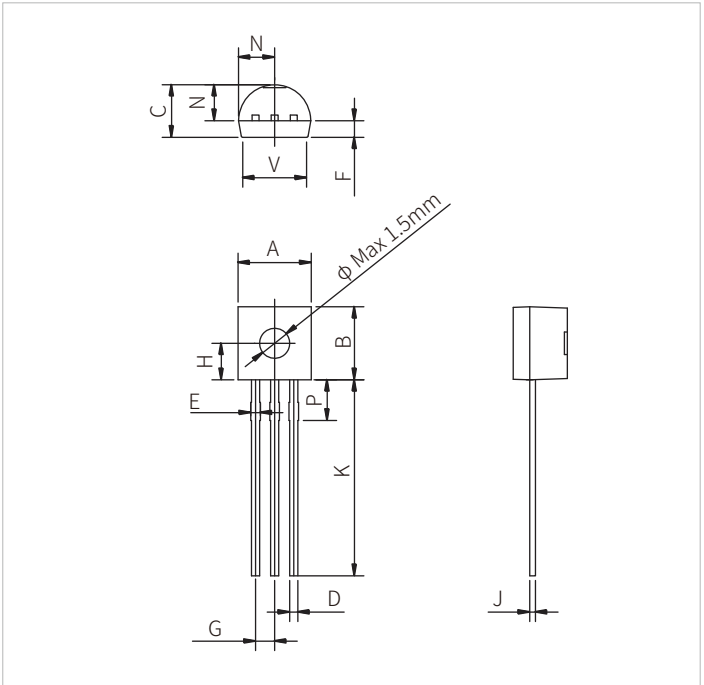


WAVE SOLDERING



Wave Parameter		Lead–free assembly
Pre Heat	Temperature Min	100°C
	Temperature Max	150°C
	Time(min to max)	60 – 180 secs
Solder pot Temperature		280°C Max
Solder Dwell Time		2-5 seconds

TO-92 PACKAGE DIMENSIONS



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.45		5.20	0.175		0.205
B	4.32		5.33	0.170		0.210
C	3.18		4.19	0.125		0.165
D	0.40		0.54	0.016		0.021
E	0.60		0.80	0.024		0.031
F		1.10			0.043	
G		1.27			0.050	
H		2.30			0.091	
J	0.36		0.50	0.014		0.020
K	12.7		15.0	0.500		0.591
N	2.04		2.66	0.080		0.105
P	1.86		2.06	0.073		0.081
V			4.30			0.169

ORDERING INFORMATION

Part Number	Package	Marking	Qty/Box
S8050-92	TO-92	S8050	2000

Headquarters
No.3387 Shendu Road
Pujiang I&E Park
Minhang Shanghai China
201000

Hotline
400-021-5756

Web
Https://www.semiware.com

Sales Center
Tel: 86-21-3463-7458
Email: sales18@semiware.com

Customer Service
Tel: 86-21-5484-1001
Email: sales17@semiware.com

Technical Support
Tel: 86-21-3463-7654
Email: fae01@semiware.com

Complaint & Suggestions
Tel: 86-21-3463-7172
Ext: 8868
Email: cs03@semiware.com

By QR Code
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Wechat

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