

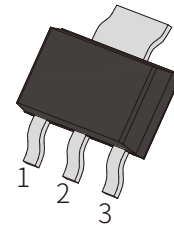
FEATURES

- | High current output up to 3A

- | Low saturation voltage

- | Complement to 2SD882

- | Power Dissipation:1.25W



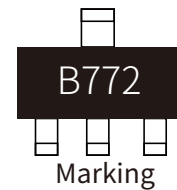
SOT-223

MECHANICAL DATA

- | SOT-223 small outline plastic package

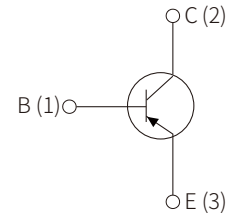
- | Epoxy UL: 94V-0

- | Mounting position: Any



APPROVALS

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



Schematic Symbol

MAXIMUM RATINGS (T_A=25°C)

Parameter	Symbol	Value	Unit
Collector-Base Breakdown Voltage	V _{CBO}	-40	V
Collector-Emitter Breakdown Voltage	V _{CEO}	-30	
Emitter-Base Breakdown Voltage	V _{EBO}	-6	
Collector Current	I _C	-3	A
Collector Power Dissipation	P _C	1.25	W
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55~+150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C)

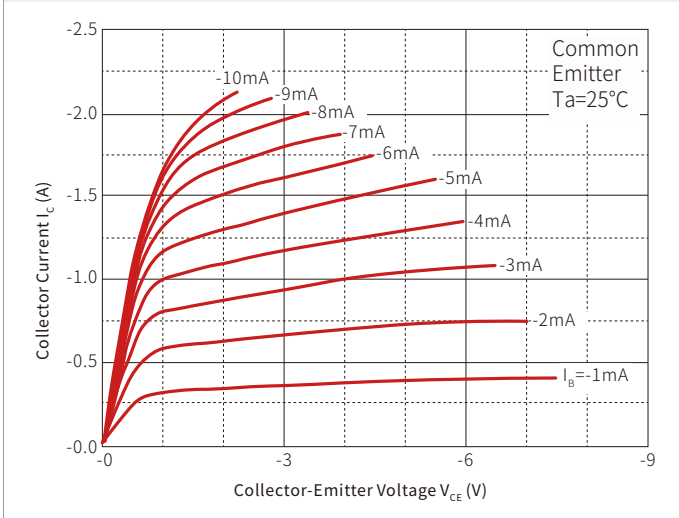
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-Base Breakdown Voltage	V _{CBO}	I _C =-100uA, I _E =0	-40			V
Collector-Emitter Breakdown Voltage	V _{CEO}	I _C =-10mA, I _B =0	-30			
Emitter-Base Breakdown Voltage	V _{EBO}	I _E =-100uA, I _C =0	-6			
Collector Cutoff Current	I _{CBO}	V _{CB} =-40V, I _E =0			-1	uA
Collector Cutoff Current	I _{CEO}	V _{CB} =-30V, I _B =0			-10	
Emitter Cutoff Current	I _{EBO}	V _{EB} =-5V, I _C =0			-1	
DC Current Gain	h _{FE(1)}	V _{CE} =-2V, I _C =-1A	60		400	
	h _{FE(2)}	V _{CE} =-2V, I _C =-100mA	32			
Collector-Emitter Saturation Voltage	V _{CE(sat)}	I _C =-2A, I _B =-200mA			-0.5	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =-2A, I _B =-200mA			-1.5	
Transition frequency	f _T	V _{CE} =-5V, I _C =-100mA, f=10MHz	50			MHz

CLASSIFICATION OF H_{FE(1)}

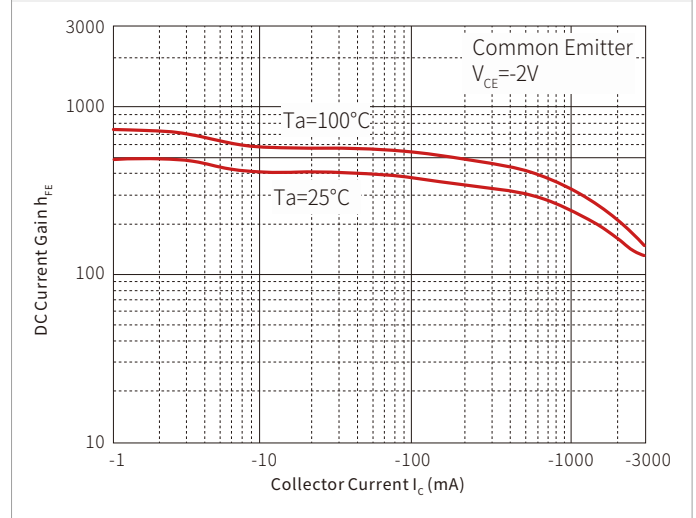
Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

TYPICAL CHARACTERISTICS

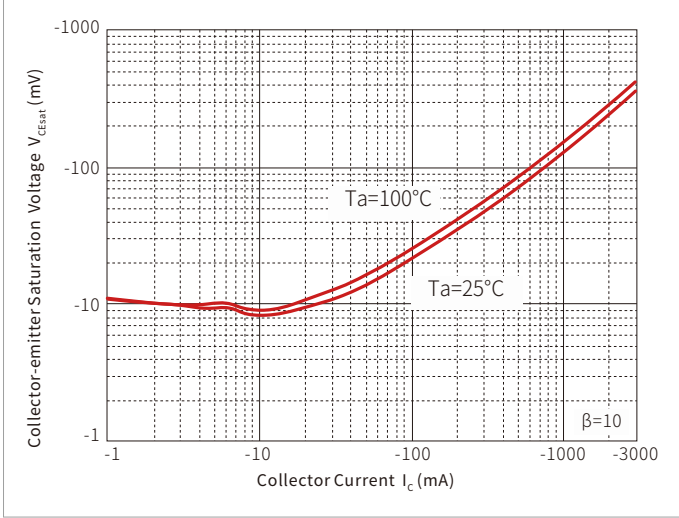
Static Characteristic



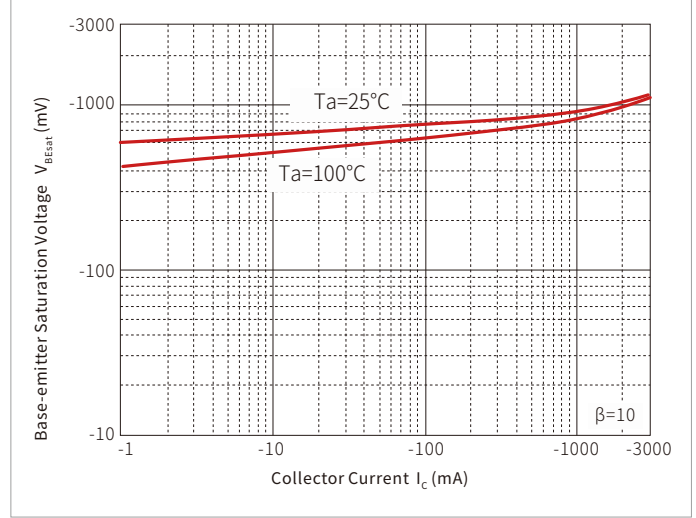
$h_{FE} \text{ — } I_c$

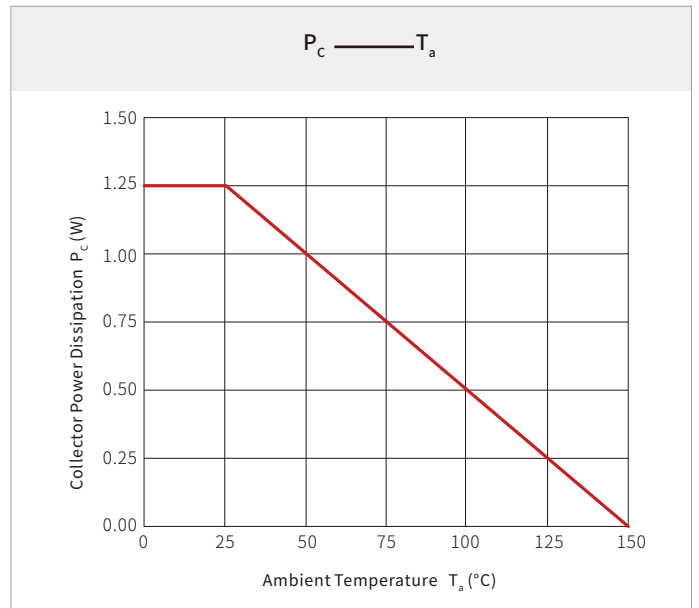
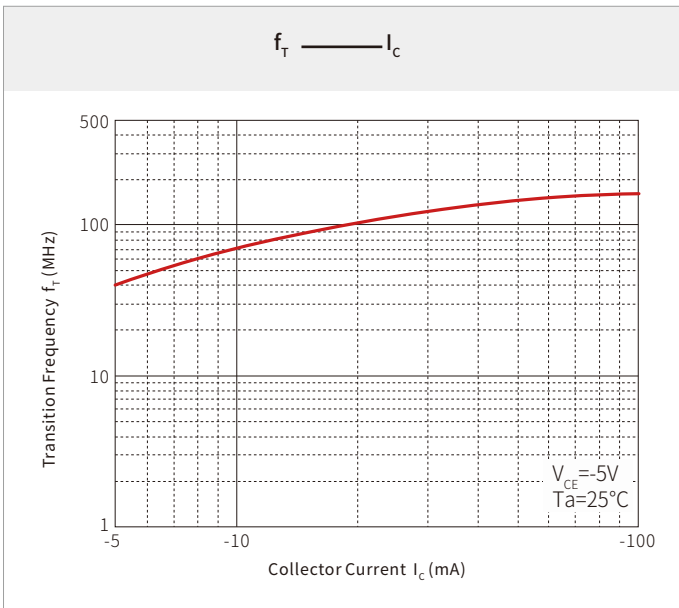
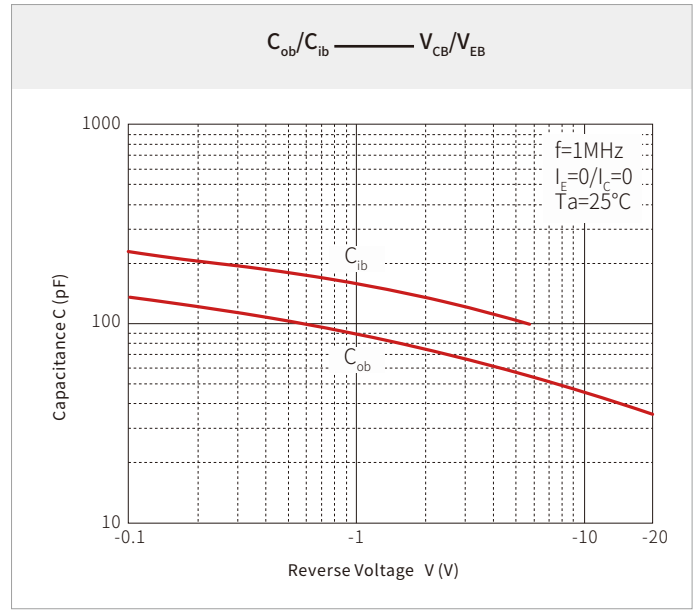
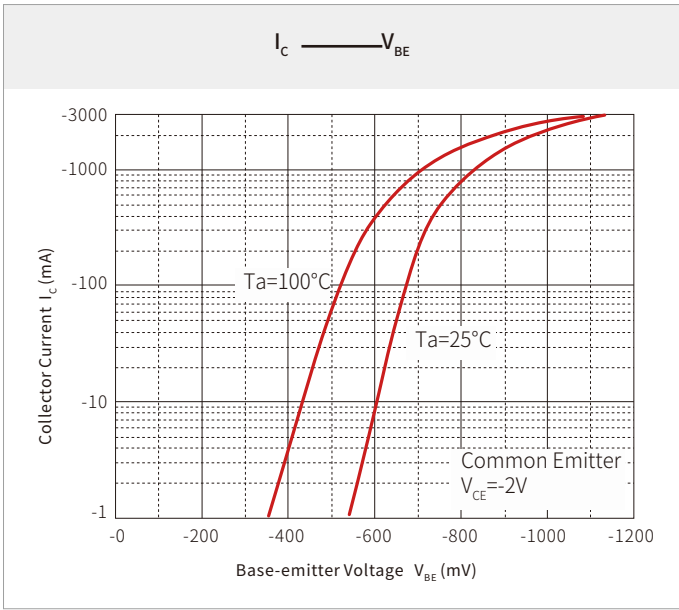


$V_{CEsat} \text{ — } I_c$



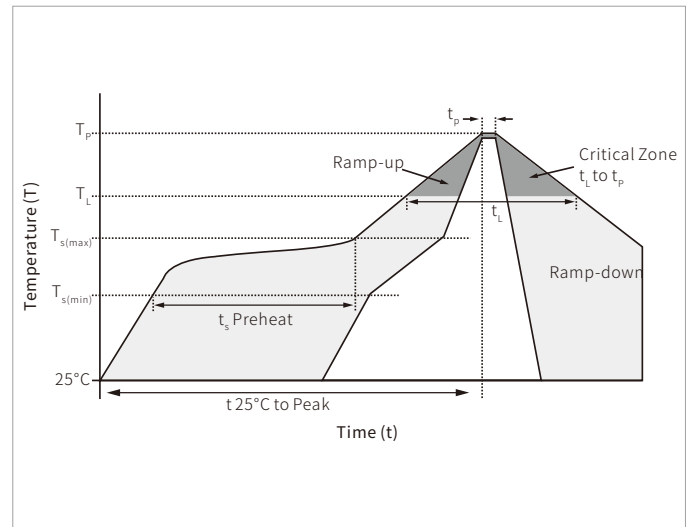
$V_{BEsat} \text{ — } I_c$



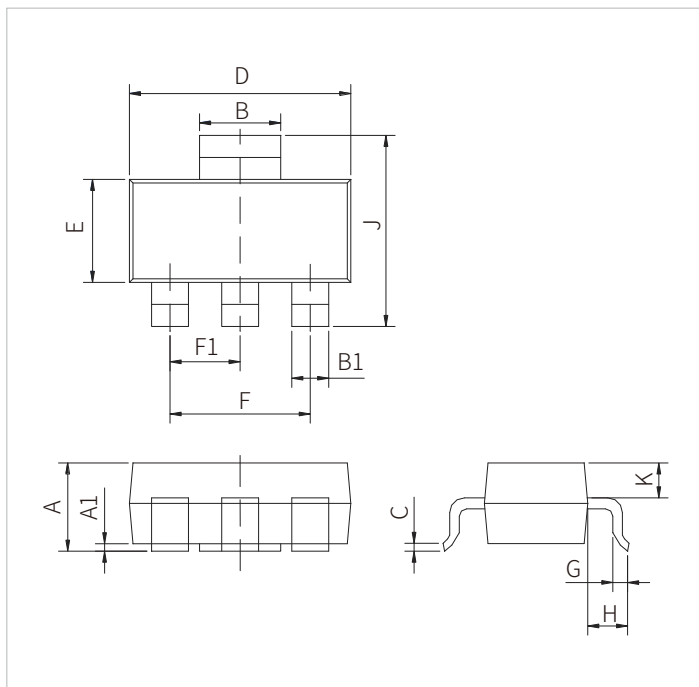


SOLDERING PARAMETERS

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_r) (Liquidus)	217°C
	Time (min to max) (t_r)	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-223 PACKAGE DIMENSIONS



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	1.40		1.70	0.055		0.067
A1	0.01		0.06	0.001		0.002
B	2.90		3.10	0.114		0.122
B1	0.60		0.80	0.024		0.031
C	0.22		0.32	0.009		0.013
D	6.30		6.70	0.248		0.264
E	3.30		3.70	0.130		0.146
F		4.60			0.181	
F1		2.30			0.091	
G	0.70		1.10	0.028		0.043
H	1.50		2.00	0.059		0.079
J	6.70		7.30	0.264		0.287
K		0.90			0.035	

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
2SB772	SOT-223	1000PCS	7"

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