2SB772L

Rev.E Mar.-2016

蓝箭电子
BLUE ROCKET ELECTRONICS

DATA SHEET

/ Descriptions

WR0<50P ṂṂꝉ SQS ᴁṀɥ s ǁ ᒣ Silicon PNP transistor in a TO-92LM Plastic Package.

/ Features

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Low saturation voltage, excellent h_{FE} linearity and high h_{FE}.

/ Applications

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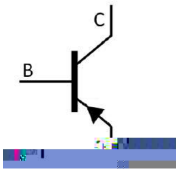
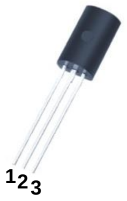
Output stage of 3 watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

/ Equivalent Circuit



/ Pinning



PIN1 χ Base PIN 2 χ Collector PIN 3 χ Emitter

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	R	Q	P	E
h_{FE} Range	60 120	100 200	160 320	200 400

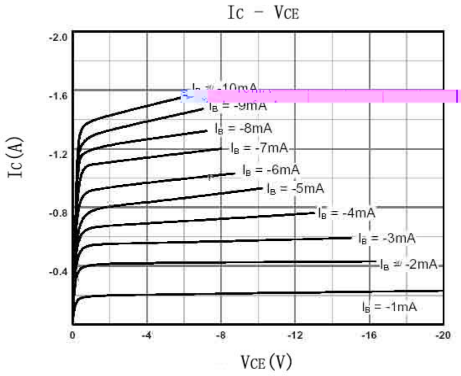
/ Absolute Maximum Ratings(Ta=25)

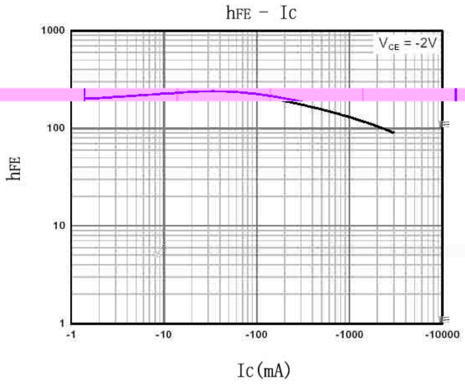
v Ὼ Parameter	ˠ ᴺ Symbol	Ὼ Ӫ Rating	ᴅ ꞕ Unit
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current (DC)	I_C	-3.0	A
Collector Current(Pulse)	I_{CP}	-7.0	A
Collector Power Dissipation	P_C	1.0	W
Collector Power Dissipation	$P_C(T_C$=25)	10	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

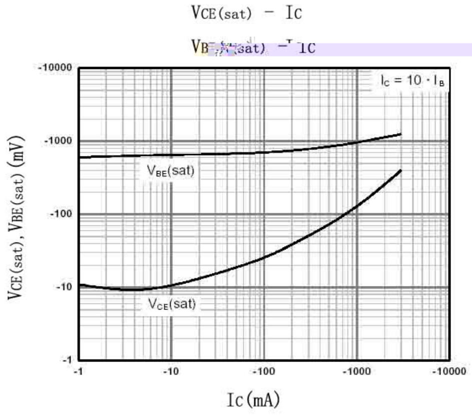
/ Electrical Characteristics(Ta=25)

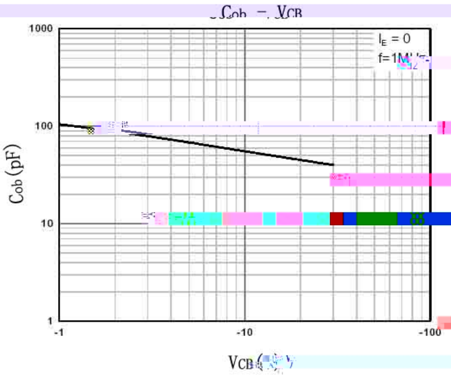
v Ὼ Parameter	ˠ ᴺ Symbol	╜ ꜝ ͳ Ƭ Test Conditions	ῳ ṇ Ӫ Min	Ɛ ʒ Ӫ Typ	ῳ ᶻ Ӫ Max	ᴅ ꞕ Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=-30V I_E=0			-1.0	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-3.0V I_C=0			-1.0	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=-2.0V I_C=-1.0A	60	160	400	
	$h_{FE(2)}$	V_{CE}=-2.0V I_C=-20mA	30	220		
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-2.0A I_B=-0.2A		-0.3	-0.5	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	I_B=-0.2A I_C=-2.0A		-1.0	-2.0	V
Transition Frequency	f_T	I_C=-0.1A V_{CE}=-5.0V		80		MHz
Collector output capacitance	C_{ob}	V_{CB}=-10V I_E=0 f=1.0MHz		55		pF

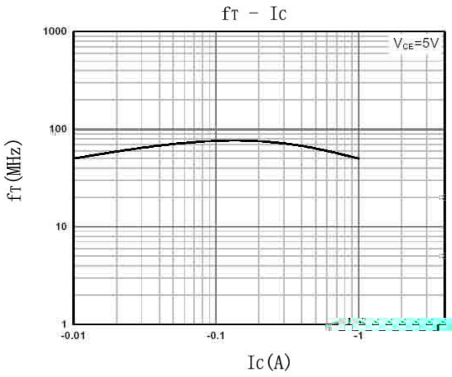
/ Electrical Characteristic Curve

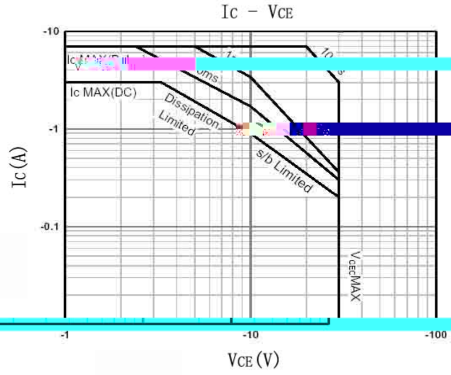






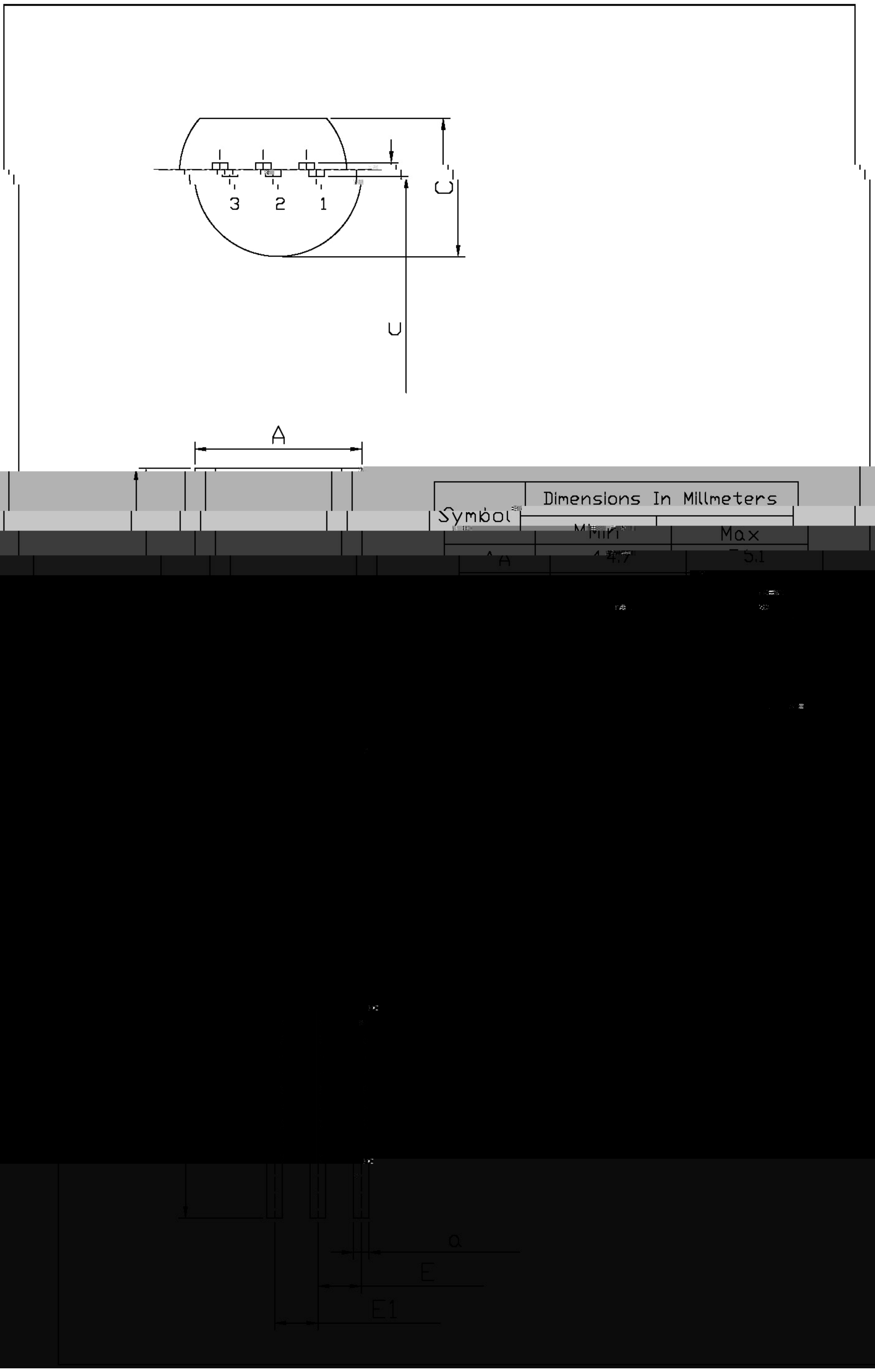






/ Package Dimensions

TO-92LM Unit: mm



Symbol	Dimensions In Millmeters	
	Min	Max
A	4.7	5.1

(   ) /   Temperature Profile for Dip Soldering(Pb-Free)

ب ˝ χ

1 ĺ ♬ □ ŷ 25 Ḱ 150 ł ı `H ڗ 60 Ḱ 90sec;

2 Ś Ӫ □ ŷ 255 ° 5 ł ı `H ڗ ʽY ʎ ꟿ 5 ° 0.5sec;

3 ì ˙ Ɏ ˛ ɔ ھ ŷ ꟿ 2 Ḱ 10 ł /sec.

Note:

1.Preheating:25~150 ł , Time:60~90sec.

2.Peak Temp.:255 ° 5 ł , Duration:5 ° 0.5sec.

3. Cooling Speed: 2~10 ł /sec.

/   Resistance to Soldering Heat Test Conditions

□ ŷ χ 270 ° 5 ł   `H ڗ χ 10 ° 1 sec.   Tf0.56Pb2fŦj/TT2 1 Tf2 0 TD-0.0005;