2SB772L

Rev.E Mar.-2016

蓝箭电子 BLUE ROCKET ELECTRONICS

DATA SHEET

/ Descriptions

WR0<50P ṂṂ Ƀ SQS Æ Ṁ ч s ǁ ㄱ 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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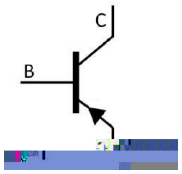
Output stage of 3 watts audio amplifier, voltage regulator, DC-DC converter and relay driver.

/ 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

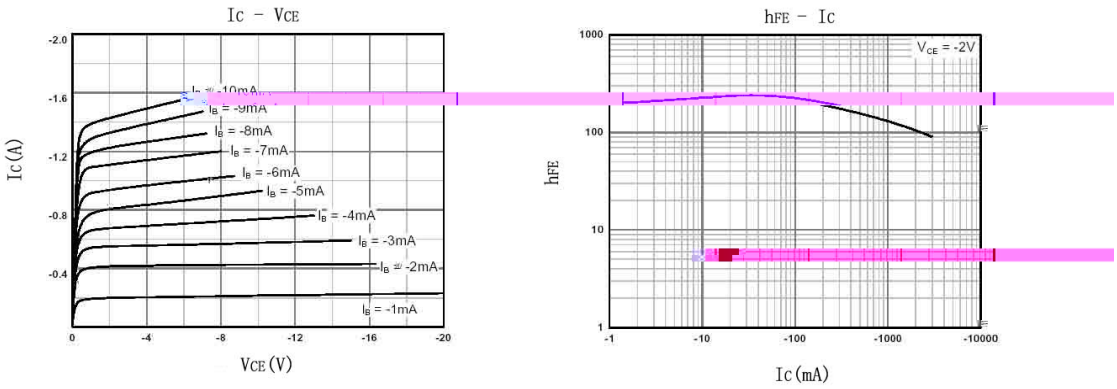
/ Absolute Maximum Ratings(Ta=25)

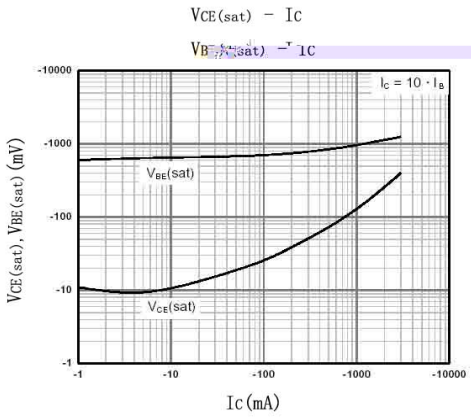
v ̈Ω Parameter	↑ N Symbol	̈Ω Ö Rating	D Ч Unit
Collector to Base Voltage	V_{CBO}	-40	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current (DC)	I_C	-3.0	A
Collector Current(Pulse)	I_{CP}	-7.0	A
Collector Power Dissipation	P_C	1.0	W
Collector Power Dissipation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

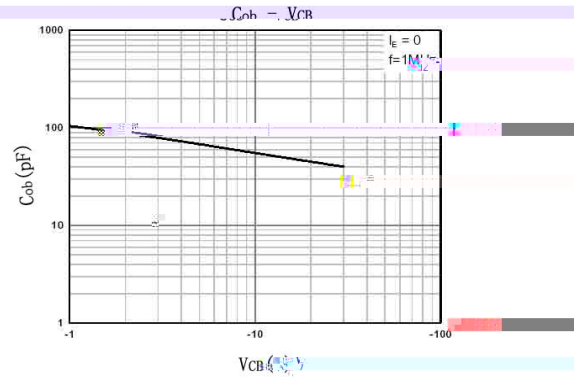
/ Electrical Characteristics(Ta=25)

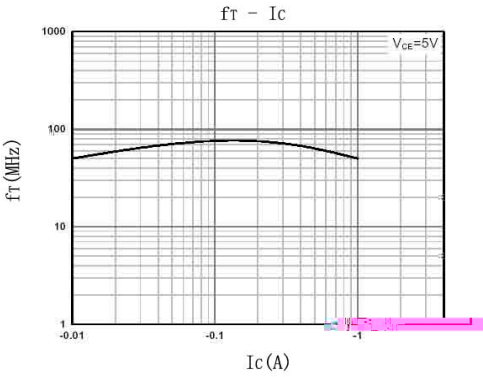
v ̈Ω Parameter	↑ N Symbol	╨ ; ┤ Ţ Test Conditions	ώ ṇ Ö Min	Ɛ ʒ Ö Typ	ώ ² Ö Max	D Ч Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=-30V I_E=0			-1.0	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=-3.0V I_C=0			-1.0	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=-2.0V I_C=-1.0A	60	160	400	
	$h_{FE(2)}$	V_{CE}=-2.0V 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

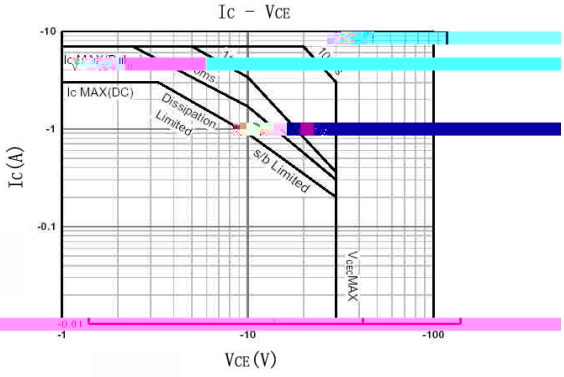
/ Electrical Characteristic Curve





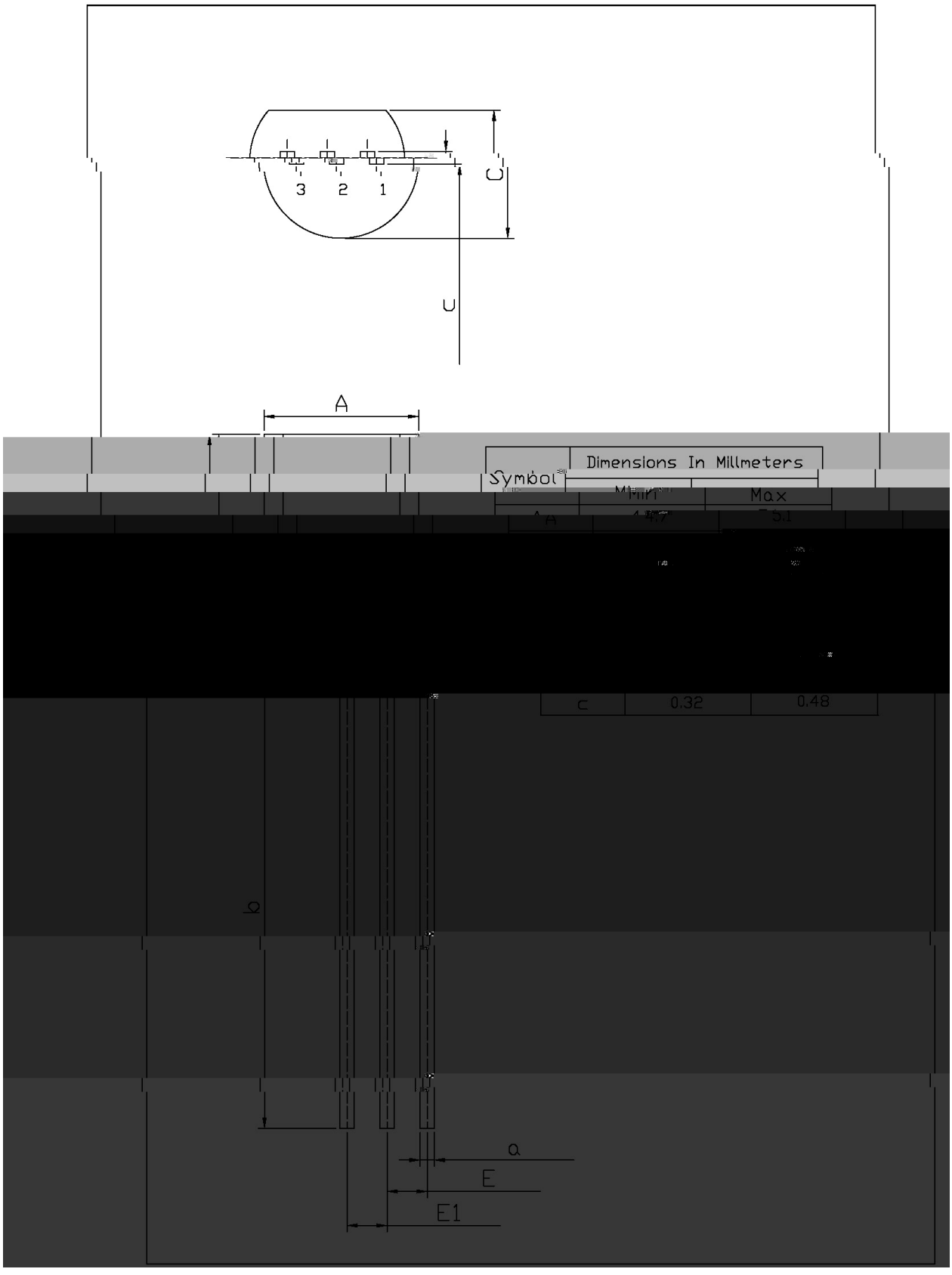






/ Package Dimensions

TO-92LM Unit: mm



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

ب ˝ χ

1 Ĺ ♬ □ ỷ 25 Ḱ 150 ɬ ı `H ڑ 60 Ḱ 90sec;

2 Š Ө □ ỷ 255 ° 5 ɬ ı `H ڑ `Y ʌ ʁ 5 ° 0.5sec;

3 ì ˙ ϒ ˛ ɔ ѡ ỷ ʁ 2 Ḱ 10 ɬ /sec.

Note:

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

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

3. Cooling Speed: 2~10 ɬ /sec.

/ Resistance to Soldering Heat Test Conditions

□ ỷ χ 270 ° 5 ɬ `H ڑ χ 10 ° 1 sec. Tf0.56Pb2f₹j/TT2 1 Tf2 0 TD-0.0005;