

5 é / Descriptions

9 5 : .> // x 6 4 6 ! - } â o Silicon PNP transistor in a SOT-23 Plastic Package.

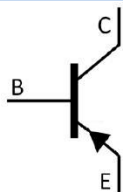
□ a / Features

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Low $V_{CE(sat)}$, high current, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

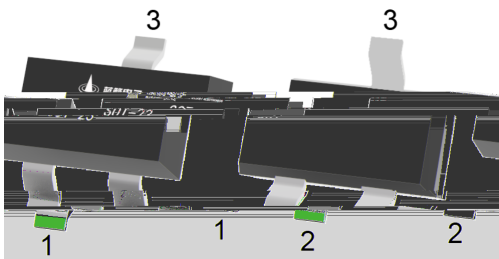
Ð ÷ / Applications

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General purpose switching and muting, LCD back-lighting, supply line switching circuits, Meet the stringent requirements of automotive applications.

Ã w] Ô · / Equivalent Circuit



• Ũ - æ / Pinning



PIN 1 y Base PIN 2 y Emitter PIN 3 y Collector

Z Ü B , M V / h_{FE} Classifications & Marking

h_{FE} Range	220~450
Marking	QZH

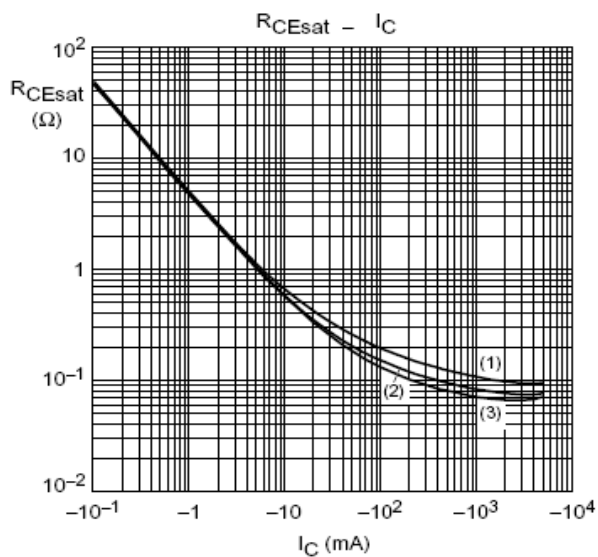
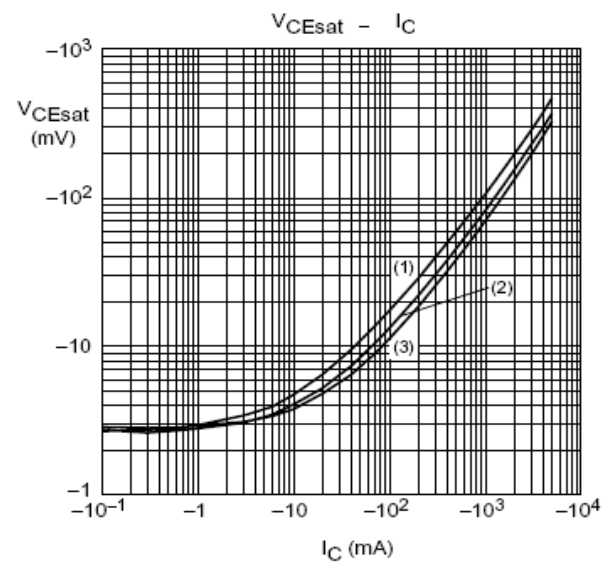
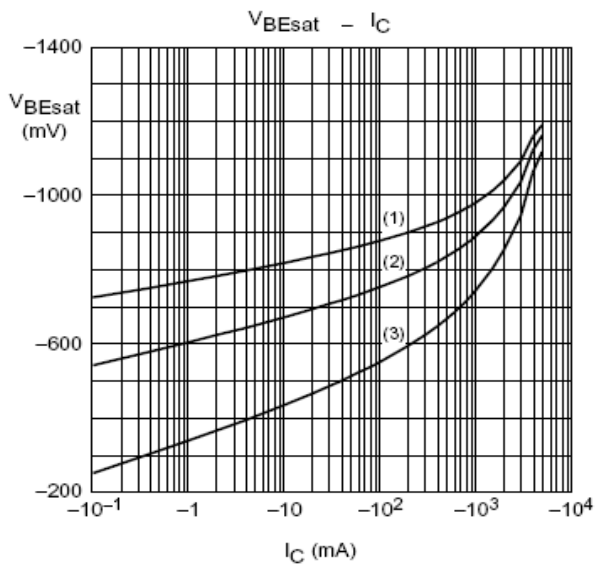
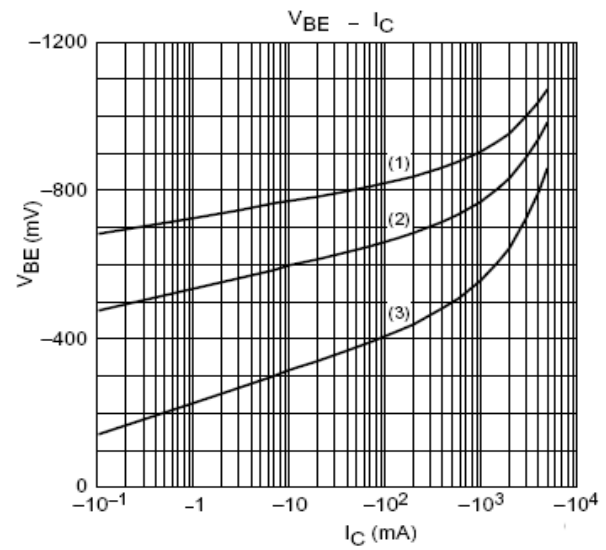
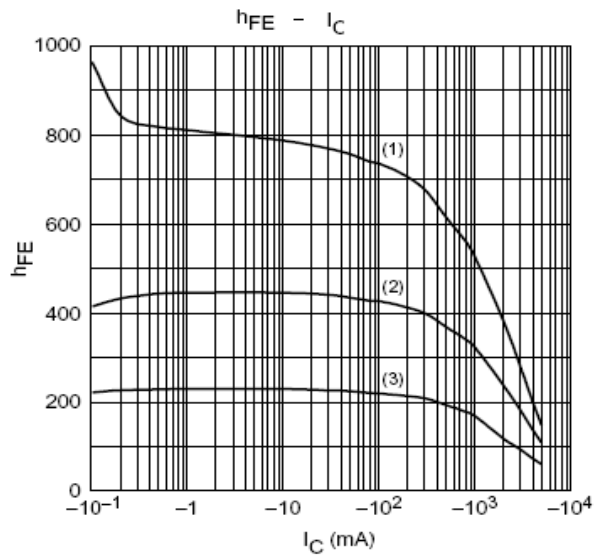
@ Parameter	Z Symbol	Rating	% y Unit
Collector to Base Voltage	V_{CBO}	-20	V
Collector to Emitter Voltage	V_{CEO}	-20	V
Emitter to Base Voltage	V_{EBO}	-5.0	V
Collector Current	I_C	-2.0	A
Peak Collector Current	I_{CM}	-5.0	A
Base Current	I_B	-0.5	A
total power dissipation	$P_{tot(1)} \# 2$	300	mW
total power dissipation	$P_{tot(2)} \# 1 \text{ } ^\circ\text{C}^2$	1.2	W
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

h y

m $\sim \dot{U}^n$ q y $\sim !$ tp 100 ms $\dot{E}$) q A 0.25 $\ddot{A}$ m $\wedge$ x α - $\acute{o}$ $\acute{L}$ $\ddot{A}$

@ Parameter	Z Symbol	y i $\dot{U}^n$ Test Conditions	4 Min	" Typ	Y Max	% y Unit
Collector Cut-Off Current	I_{CBO}	$V_{CB}=-20V$ $I_E=0$			-0.1	A
		$V_{CB}=-20V$ $I_E=0$ $T_j=150$			-50	A
Emitter Cut-Off Current	I_{EBO}	$V_{EB}=-5.0V$ $I_C=0$			-0.1	A
DC Current Gain	$h_{FE(1)}$	$V_{CE}=-2.0V$ $I_C=-500mA$	220		450	
	$h_{FE(2)}$	$V_{CE}=-2.0V$ $I_C=-100mA$	220			
	$h_{FE(3)}$	$V_{CE}=-2.0V$ $I_C=-1.0A$	200			
	$h_{FE(4)}$	$V_{CE}=-2.0V$ $I_C=-2.0A$	150			
	$h_{FE(5)}$	$V_{CE}=-2.0V$ $I_C=-3.0A$	100			
Collector-Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=-500mA$ $I_B=-50mA$			-100	mV
	$V_{CE(sat)(2)}$	$I_C=-2.0A$ $I_B=-100mA$			-300	mV
Equivalent on-resistance	$R_{CE(sat)}$	$I_C=-2.0A$ $I_B=-200mA$		125	150	m
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-2.0A$ $I_B=-100mA$			-1.1	V
		$I_C=-3.0A$ $I_B=-300mA$			-1.2	V
Base-Emitter Voltage	$V_{BE(ON)}$	$V_{CE}=-2.0V$ $I_C=-1.0A$			-1.2	V
Transition Frequency	f_T	$V_{CE}=-5.0V$ I_C				

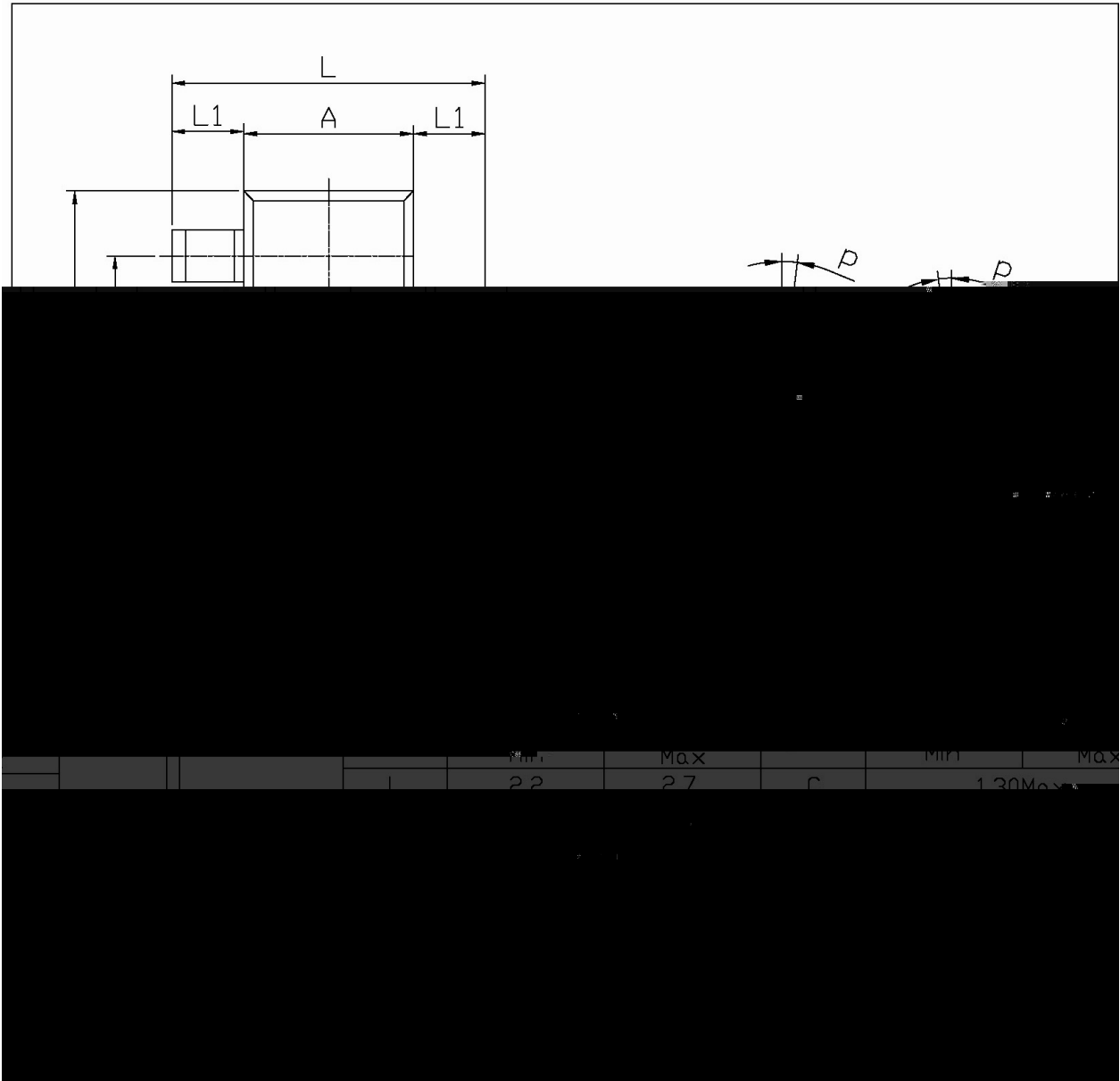
Electrical Characteristic Curve



Ø □ =) ♂ / Package Dimensions

SOT-23

单位：mm



, M y f / Marking Instructions



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Note:

Q: Automobile halogen-free product Code

ZH y Product Type

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Note:

1o ~‰ 150 %200 - k 60 %120sec; 1.Preheating:150~200 - , Time:60~120sec.

2o Q 255 r5 - k 4 Ò 5 r0.5sec; 2.Peak Temp.:255 r5 - , Duration:5 r0.5sec.

3o D N òi Ò , 2 %10 - /sec. 3.Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

y 260 r5 - y 10 r1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL