

Rev.A Mar.-2023

SOT-23

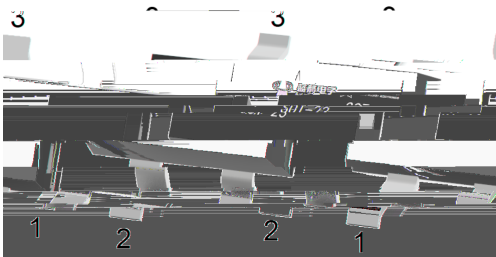
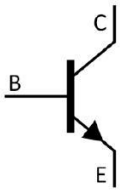
NPN

Silicon NPN transistor in a SOT-23 Plastic Package.

AEC-Q101

Low C_{ob} , Qualified to AEC-Q101 Standards for High Reliability, HF Product.

General amplifier, Meet the stringent requirements of automotive applications.



PIN1 Base

PIN 2

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	7.0	V
Collector Current	I_C	150	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- Base Breakdown Voltage	V_{CBO}	$I_C=50\text{ A}$	60			V
Collector-Emitter Breakdown Voltage	V_{CEO}	$I_C=1.0\text{mA}$	50			V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E=50\text{ A}$	7.0			V
Collector Cut-Off Current	I_{CBO}	$V_{CB}=60\text{V}$			0.1	A
Emitter Base Cut-Off Current	I_{EBO}	$V_{EB}=7.0\text{V}$			0.1	A
DC Current Gain	h_{FE}	$V_{CE}=6.0\text{V}$ $I_C=1.0\text{mA}$	120		560	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=50\text{mA}$ $I_B=5.0\text{mA}$			0.4	V
Transition Frequency	f_T	$V_{CE}=12\text{V}$ $f=100\text{MHz}$ $I_E=-2.0\text{mA}$		180		MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=12\text{V}$ $f=1.0\text{MHz}$ $I_E=0$		2.0	3.5	pF

Collec8

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QBQ

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Note:

Q: Automobile halogen-free product Code

(y Product Type Code

7 y hFE Classifications Symbol

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Note:

1.Preheating:150~200