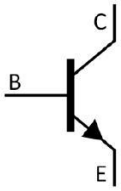
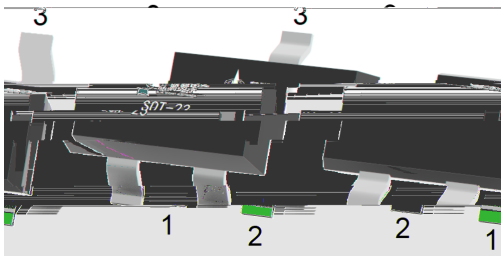
SOT-23 NPN Silicon NPN transistor in a SOT-23 Plastic Package.

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 Emitter PIN 3 Collector

h_{FE} Classifications Symbol	Q	R	S
h_{FE} Range	120 270	180 390	270 560
Marking	QBQ	QBR	QBS

@ *f* Parameter	… Z Symbol	*f* › Rating	% y 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	

@ *f* Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Collector- Base Breakdown Voltage	V_{CBO}	I_C=50 A	60			V
Collector-Emitter Breakdown Voltage	V_{CEO}	I_C=1.0mA	50			V
Emitter-Base Breakdown Voltage	V_{EBO}	I_E=50 A	7.0			V
Collector Cut-Off Current	I_{CBO}	V_{CB}=60V			0.1	A
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=7.0V			0.1	A
DC Current Gain	h_{FE}	V_{CE}=6.0V I_c=1.0mA	120		560	
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=50mA I_B=5.0mA			0.4	V
Transition Frequency	f_T	V_{CE}=12V I_E=-2.0mA f=100MHz		180		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=12V I_E=0 f=1.0MHz		2.0	3.5	pF

Ô ? d • Ž ¢ / Electrical Characteristic Curve

Ø ¤ =) ¢ / Package Dimensions

, M y ƒ / Marking Instructions

QBQ

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7 y h_{FE}) W A

Note:

Q: Automobile halogen-free product Code

(y Product Type Code

7 y h_{FE} Classifications Symbol

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Note:

1.Preheating:150~200