

/ Descriptions

Silicon NPN transistor in a SOT-23 Plastic Package.

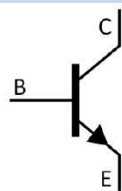
/ Features

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

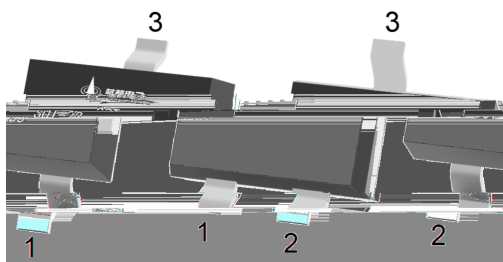
/ Applications

General amplifier, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

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 i Ú ^ Test Conditions	Â 4 > Min	Á ° > 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 f=100MHz I _E =-2.0mA		180		MHz
Collector Output Capacitance	C _{ob}	V _{CB} =12V f=1.0MHz I _E =0		2.0	3.5	pF

MHz

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QBQ

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Note:

Q: Automobile halogen-free product Code

(y Product Type Code

7 y h_{FE} Classifications Symbol

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Note:

10•Ä½“† 150½200 - kž• 60½120sec; 6l.Preheating:150~200