/ Descriptions

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

/ Features

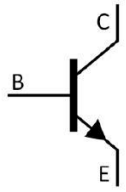
AEC-Q101

Low current, Low voltage, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

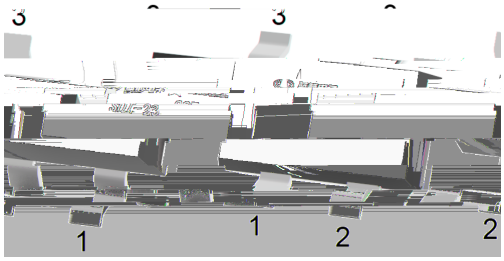
/ Applications

General purpose amplifier and switching, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN 1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

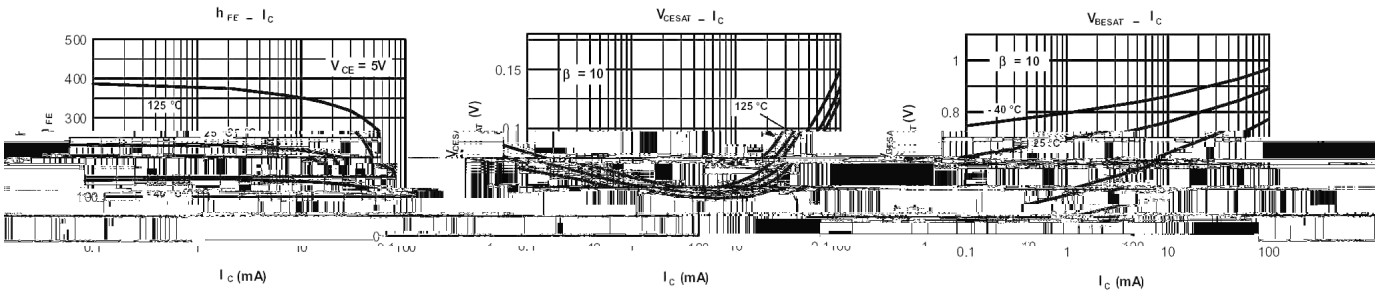
h_{FE} Range	100 300
Marking	· Q1A

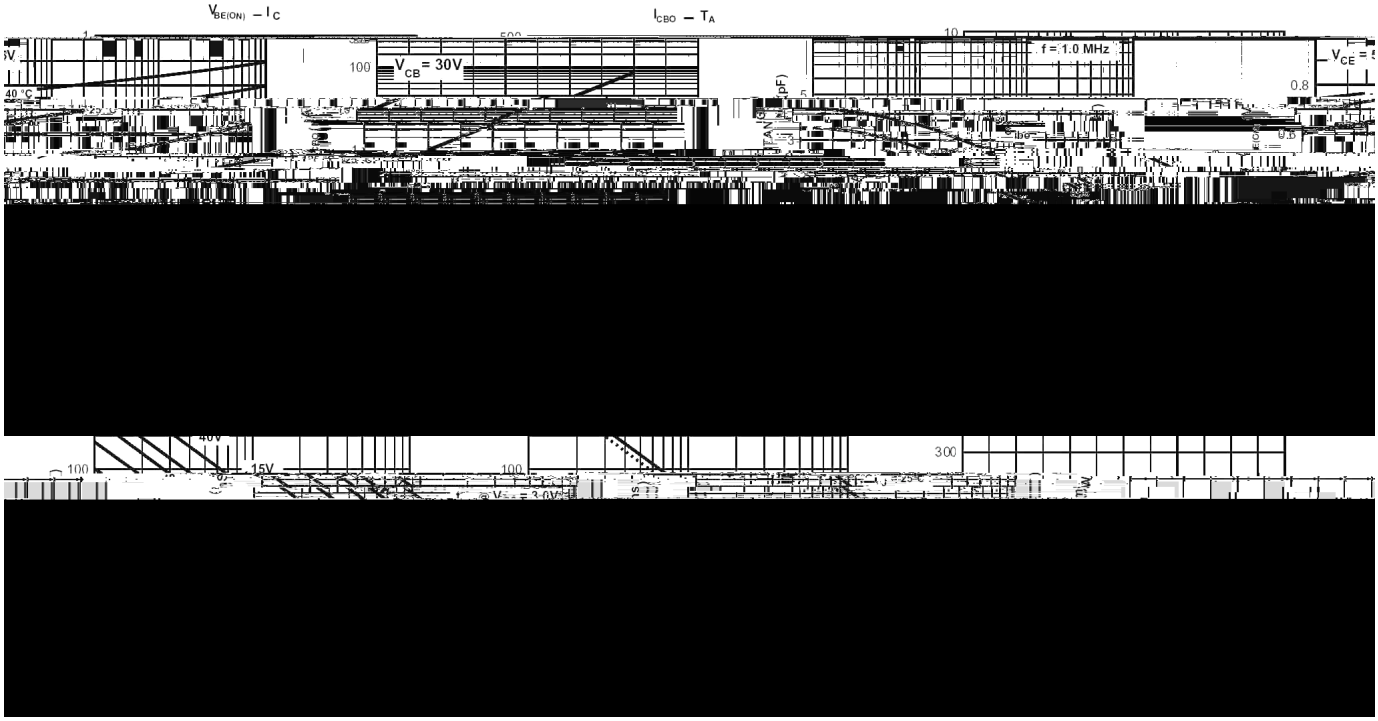
Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	40	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current	I_C	200	mA
Collector Power Dissipation	P_C	200	mW
Collector Power Dissipation	*P_C	350	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

* 7×5×0.6mm *When mounted on a 7×5×0.6mm ceramic board

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=10μA I_E=0	60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=1.0mA I_B=0	40			V

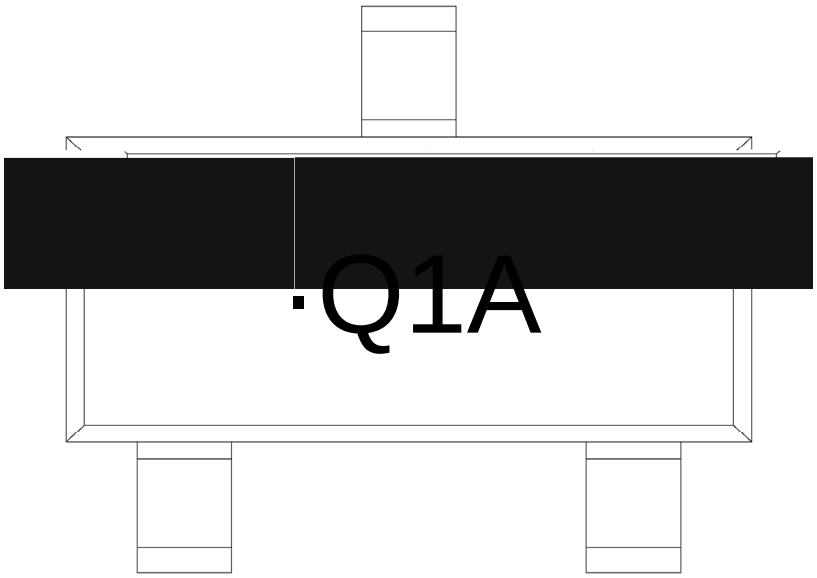
/ Electrical Characteristic Curve





/ Package Dimensions

/ Marking Instructions



·

Q

1A

Note:

·	Identify
Q:	Automobile halogen-free product Code
1A	Product Type Code

( ) / Temperature Profile for IR Reflow Soldering(Pb-Free)

Note:

1	150 200	60 120sec;	1.Preheating:150~200	, Time:60~120sec.
2	255±5	5±0.5sec;	2.Peak Temp.:255±5	, Duration:5±0.5sec.
3	2 10 /sec.		3. Cooling Speed: 2~10 /sec.	

/ Resistance to Soldering Heat Test Conditions

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec

/ Packaging SPEC.

/ REEL

Package Type	Units	Dimension (unit mm³)
	Units/Reel /	