R

## / Descriptions

SOT-23

Silicon Diode in a SOT-23 Plastic Package.

## / Features

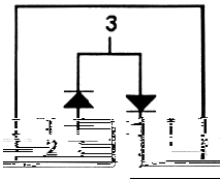
AEC-Q101

Small signal diode, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

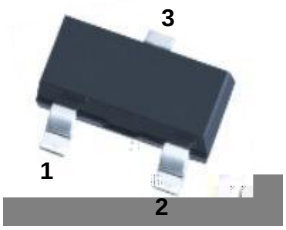
## / Applications

High Conductance Ultra Fast Diode, Meet the stringent requirements of automotive applications.

## / Equivalent Circuit




## / Pinning



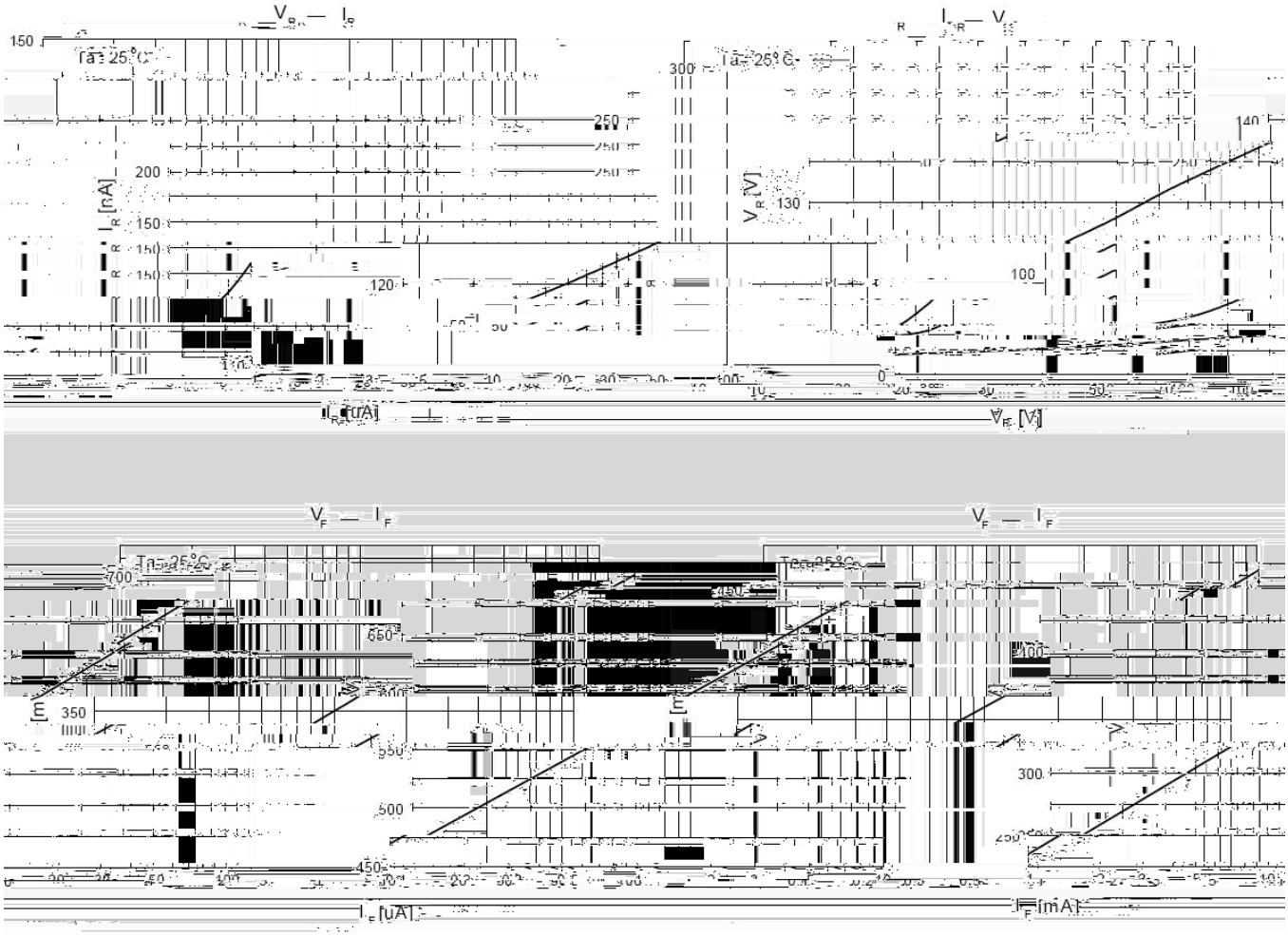

PIN: See Equivalent Circuit.

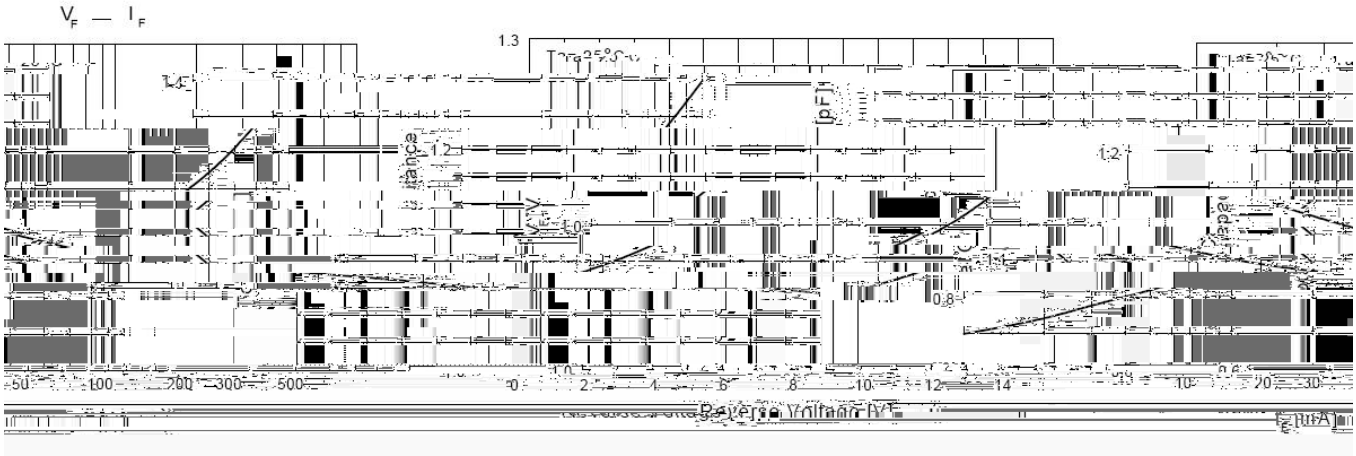
## / Marking

| | |
|---|---|
| Marking | QA7 |

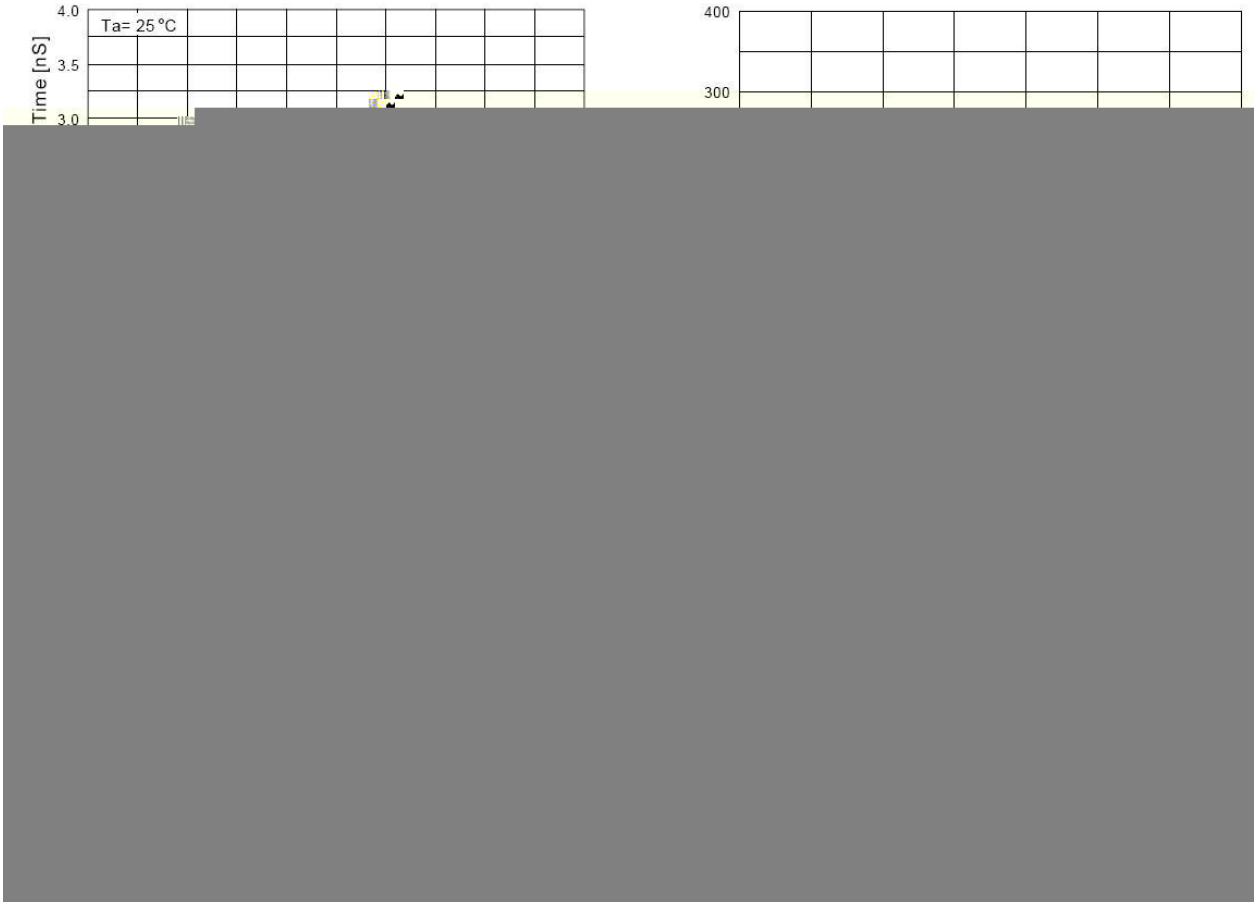
| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Maximum Repetitive Reverse Voltage | $V_{RRM}$ | 70 | V |
| Average Rectified Forward Current | $I_{F(AV)}$ | 200 | mA |
| Non-repetitive Peak Forward Surge Current ; | $I_{FSM(1)(pulse\ width=1.0S)}$ | 1.0 | A |
| | $I_{FSM(2)(pulse\ width=1.0mS)}$ | 2.0 | A |
| Power Dissipation | $P_D$ | 350 | mW |
| Thermal Resistance, Junction to Ambient | $R_{\theta JA}$ | 357 | ℃/W |
| Junction Temperature | $T_j$ | 150 | ℃ |
| Storage Temperature Range | $T_{stg}$ | -55 | |

## / Electrical Characteristic Curve

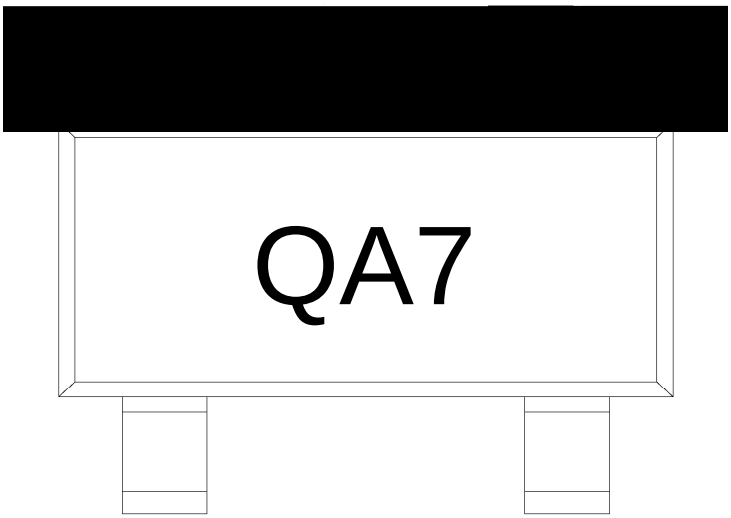


## / Electrical Characteristic Curve



## / Marking Instructions




Q

A7

Note:

Q: Automobile halogen-free product Code

A7: Product Type Code

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

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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 封装形式 | Units 包装数量 | | | | | Dimension 包装尺寸 (unit: $mm^3$) | | |
|---|---|---|---|---|---|---|---|---|
| | Units/Reel 只/卷盘 | Reels/Inner Box 卷盘/盒 | Units/Inner Box 只/盒 | Inner Boxes/Outer Box 盒/ | Units/Outer Box 只/ | Reel | Inner Box 盒 | Outer Box 箱 |