

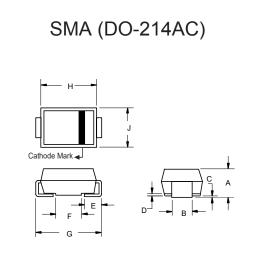
## Features

- Halogen Free. "Green" Device (Note 1)
- Fully Automotive Qualified to AEC-Q101
- Low Profile Package
- High Surge Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

# Maximum Ratings @ 25°C (Unless Otherwise Specified)

# 3 Amp Surface Mount Schottky Rectifier 40 to 60 Volts

|   |                    | Va       |          |      |  |
|---|--------------------|----------|----------|------|--|
| Parameter   | Symbol             | SK34AQ-L | SK36AQ-L | Unit |  |
| Peak Repetitive<br>Reverse Voltage                            | V <sub>RRM</sub>   |          |          |      |  |
| Working Peak<br>Reverse Voltage                               | V <sub>RWM</sub>   | 40       | 60       | V    |  |
| DC Blocking Voltage   | V <sub>R</sub>     |          |          |      |  |
| RMS Reverse Voltage   | V <sub>RMS</sub>   | 28       | 42       | V    |  |
| Average Rectified Forward<br>Current @ T <sub>L</sub> =100°C  | I <sub>F(AV)</sub> | 3        |          | А    |  |
| Non-Repetitive Peak<br>Surge Current<br>@8.3ms Half Sine Wave | I <sub>FSM</sub>   | 80 4     |          | A    |  |
| Current Squared Time<br>@ 1ms≤t≤8.3ms                         | l <sup>2</sup> t   | 26.56    |          |      |  |



|      | DIMENSIONS |       |       |       |      |
|------|------------|-------|-------|-------|------|
| DIM  | INCHES     |       | MM    |       | NOTE |
| Divi | MIN        | MAX   | MIN   | MAX   | NOTE |
| Α    | 0.075      | 0.096 | 1.90  | 2.44  |      |
| В    | 0.050      | 0.064 | 1.27  | 1.63  |      |
| С    | 0.002      | 0.008 | 0.051 | 0.203 |      |
| D    |            | 0.020 |       | 0.51  |      |
| E    | 0.030      | 0.060 | 0.76  | 1.52  |      |
| F    | 0.065      | 0.091 | 1.65  | 2.32  |      |
| G    | 0.189      | 0.220 | 4.80  | 5.59  |      |
| Н    | 0.157      | 0.187 | 4.00  | 4.75  |      |
| J    | 0.090      | 0.115 | 2.25  | 2.92  |      |

# SK36AQ-L

Marking code

Part Number

SK34AQ-L

#### **Internal Structure**

| Pin | Description | Simplified outline  | Graphic symbol |
|-----|-------------|---------------------|----------------|
| 1   | cathode     |                     |                |
| 2   | anode       | XXXX = Marking code | 1 o o 2        |

Marking code

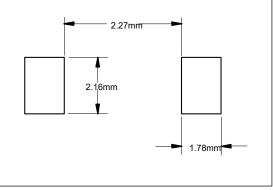
SK34A

SK36A

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

#### SUGGESTED SOLDER PAD LAYOUT





# Thermal characteristics

| Symbol               | Parameter                                   | Conditions | Min | Тур | Мах | Unit |
|----------------------|---|------------|-----|-----|-----|------|
| TJ                   | Operating Junction Temperature Range        |            | -55 |     | 150 | °C   |
| T <sub>stg</sub>     | Storage Temperature Range                   |            | -55 |     | 150 | °C   |
| Rth <sub>(J-L)</sub> | Thermal Resistance from Junction to Lead    | Note 1     |     | 25  |     | °C/W |
| Rth <sub>(J-A)</sub> | Thermal Resistance from Junction to Ambient | Note 1     |     | 70  |     | °C/W |

Note:

1.Mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper.

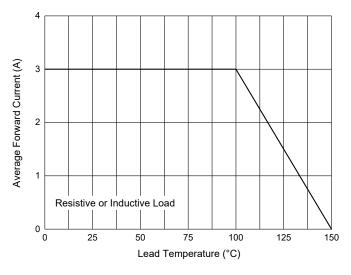
### Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter            | Symbol         | Test Conditions                                | Min | Тур        | Max  | Unit |
|----------------------|----------------|--|-----|------------|------|------|
| Forward Voltage      |                |  |     |            |      |      |
| SK34AQ-L             | V <sub>F</sub> | I <sub>F</sub> =3A;T <sub>J</sub> =25°C        |     | 0.48       | 0.50 |      |
|                      |                | I <sub>F</sub> =3A;T <sub>J</sub> =125°C       |     | 0.41       | 0.45 | V    |
| SK36AQ-L             |                | I <sub>F</sub> =3A;T <sub>J</sub> =25°C        |     | 0.60       | 0.70 |      |
|                      |                | I <sub>F</sub> =3A;T <sub>J</sub> =125°C       |     | 0.54       | 0.63 |      |
| Reverse Current      |                |  |     |            |      |      |
| SK34AQ-L             | I <sub>R</sub> | at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C  |     |            | 0.1  | mA   |
|                      |                | at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C |     |            | 30   |      |
| SK36AQ-L             |                | at Rated V <sub>R</sub> ;T <sub>J</sub> =25°C  |     |            | 0.1  |      |
|                      |                | at Rated V <sub>R</sub> ;T <sub>J</sub> =125°C |     |            | 10   |      |
| Junction Capacitance |                |  |     |            |      |      |
| SK34AQ-L<br>SK36AQ-L | CJ             | V <sub>R</sub> =4V;f=1MHz;T <sub>J</sub> =25°C |     | 150<br>132 |      | pF   |



## **Curve Characteristics**





#### Fig. 3 - Typical Forward Characteristics

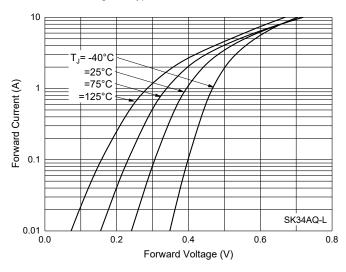
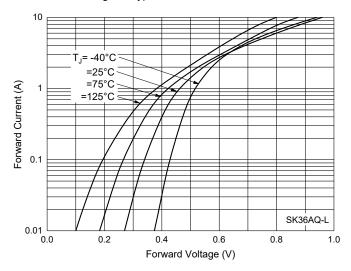


Fig. 5 - Typical Forward Characteristics



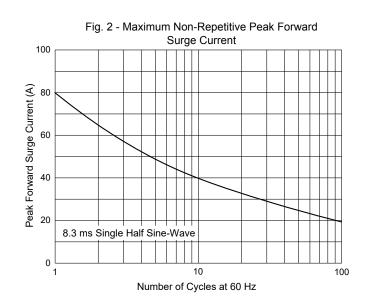


Fig. 4 - Typical Reverse Leakage Characteristics

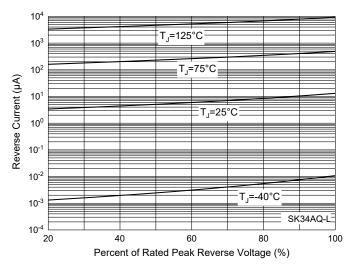
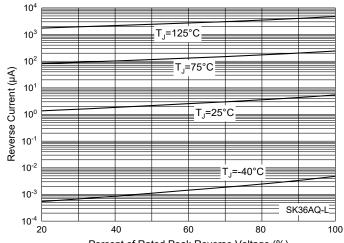


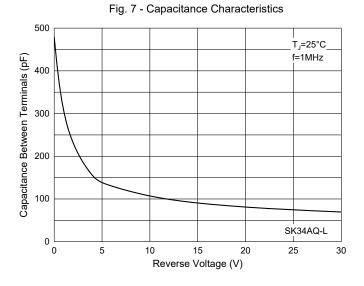
Fig. 6 - Typical Reverse Leakage Characteristics

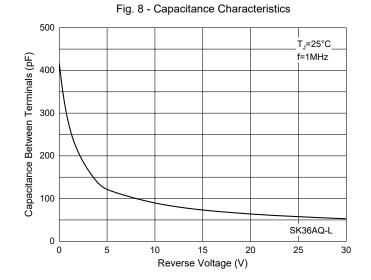


Percent of Rated Peak Reverse Voltage (%)



## **Curve Characteristics**







#### **Ordering Information**

| Device          | Packing              |  |
|-----------------|----------------------|--|
| Part Number-LTP | Tape&Reel:5Kpcs/Reel |  |

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