

## Features

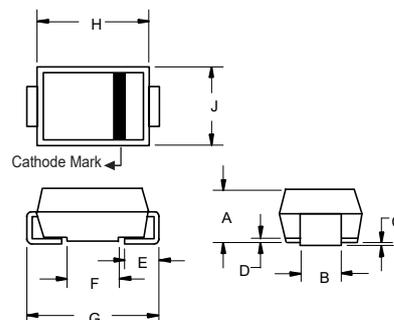
- Low Forward Voltage Drop and Low Power Losses
- For Surface Mount Applications
- Lead Free Finish/RoHS Compliant (Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free. "Green" Device (Note 2)
- Moisture Sensitivity Level 1

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

| Parameter  | Symbol      | Value | Unit                 |
|--|-------------|-------|----------------------|
| Peak Repetitive Reverse Voltage                              | $V_{RRM}$   | 60    | V                    |
| Working Peak Reverse Voltage                                 | $V_{RWM}$   |       |                      |
| DC Blocking Voltage  | $V_R$       |       |                      |
| RMS Reverse Voltage  | $V_{RMS}$   | 42    | V                    |
| Average Rectified Forward Current @ $T_L=85^\circ\text{C}$   | $I_{F(AV)}$ | 5     | A                    |
| Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave     | $I_{FSM}$   | 100   | A                    |
| Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$ | $I^2t$      | 41.5  | $\text{A}^2\text{s}$ |

# 5 Amp Low VF Schottky Rectifier 60 Volts

## SMA (DO-214AC)



| DIM | INCHES |       | MM    |       | NOTE |
|-----|--------|-------|-------|-------|------|
|     | MIN    | MAX   | MIN   | MAX   |      |
| A   | 0.079  | 0.096 | 2.00  | 2.44  |      |
| B   | 0.050  | 0.064 | 1.27  | 1.63  |      |
| C   | 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  |      |
| H   | 0.157  | 0.181 | 4.00  | 4.60  |      |
| J   | 0.090  | 0.115 | 2.25  | 2.92  |      |

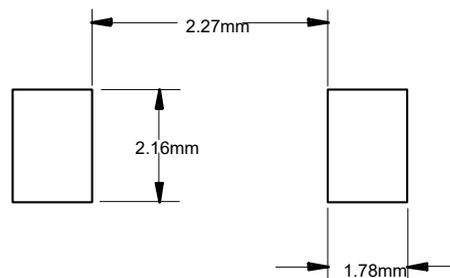
## Internal Structure

| Pin | Description | Simplified Outline | Graphic Symbol |
|-----|-------------|--------------------|----------------|
| 1   | Cathode     |                    |                |
| 2   | Anode       |                    |                |

Note:

1. High temperature solder exemption applied, see EU directive annex 7a.
2. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

## SUGGESTED SOLDER PAD LAYOUT



## Thermal characteristics

| Symbol        | Parameter                                   | Conditions | Min | Typ | Max | Unit |
|---------------|---|------------|-----|-----|-----|------|
| $T_J$         | Operating Junction Temperature Range        |            | -55 |     | 150 | °C   |
| $T_{stg}$     | Storage Temperature Range                   |            | -55 |     | 150 | °C   |
| $R_{th(J-L)}$ | Thermal Resistance from Junction to Lead    | Note 1     |     | 25  |     | °C/W |
| $R_{th(J-A)}$ | Thermal Resistance from Junction to Ambient | Note 1     |     | 85  |     | °C/W |

Note:

1. Mounted on P.C.B. with 8mm\*8mm copper pad areas.

## Electrical Characteristics @ 25°C Unless Otherwise Specified

| Parameter            | Symbol | Test Conditions  | Min | Typ                          | Max          | Unit |
|----------------------|--------|--|-----|------------------------------|--------------|------|
| Forward Voltage      | $V_F$  | $I_F=1A; T_J=25^\circ C$<br>$I_F=5A; T_J=25^\circ C$<br>$I_F=1A; T_J=125^\circ C$<br>$I_F=5A; T_J=125^\circ C$ |     | 0.40<br>0.52<br>0.29<br>0.47 | 0.55<br>0.50 | V    |
| Reverse Current      | $I_R$  | at Rated $V_R; T_J=25^\circ C$<br>at Rated $V_R; T_J=125^\circ C$  |     |                              | 0.1<br>30    | mA   |
| Junction Capacitance | $C_J$  | $V_R=4V; f=1MHz; T_J=25^\circ C$   |     | 0.5                          |              | nF   |

## Curve Characteristics

Fig. 1 - Forward Current Derating Curve

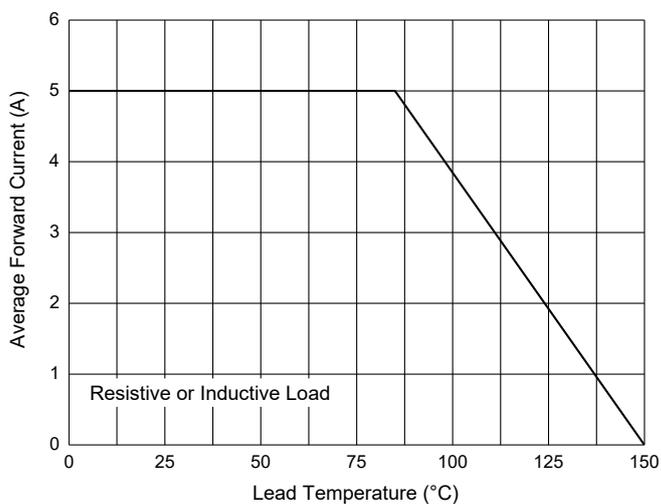


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

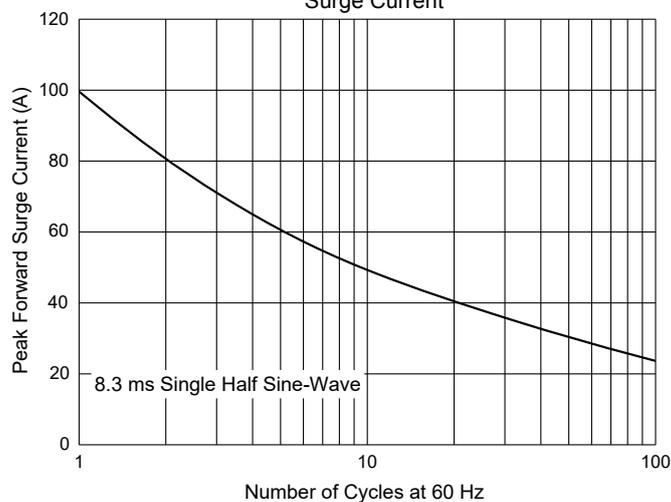


Fig. 3 - Typical Forward Characteristics

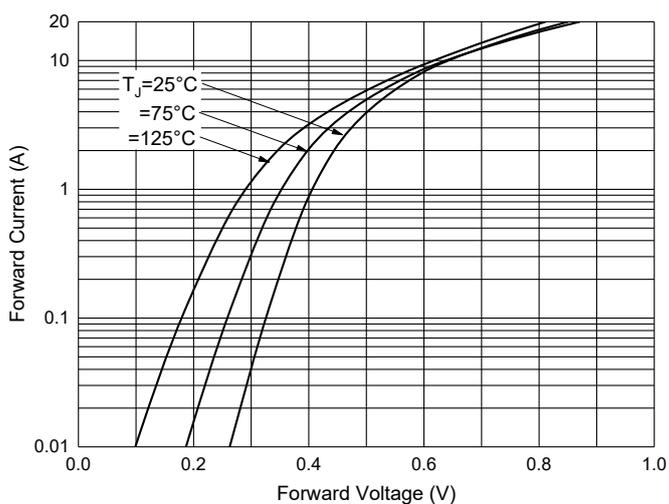


Fig. 4 - Typical Reverse Leakage Characteristics

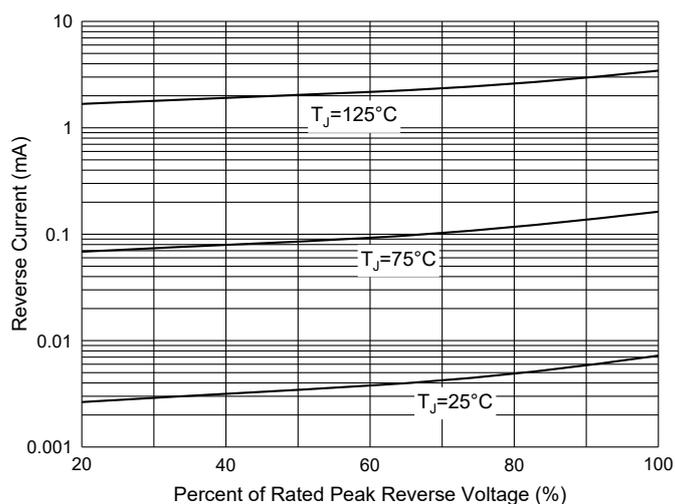
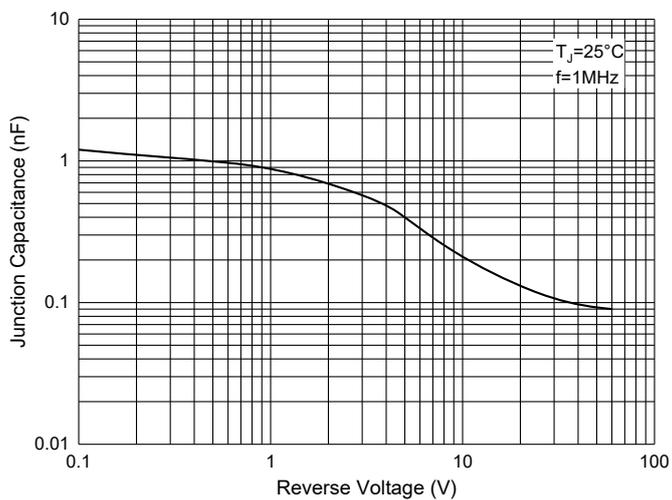


Fig. 5 - Typical Capacitance Characteristics



## Ordering Information

| Device   | Packing              |
|----------|----------------------|
| SL56A-TP | Tape&Reel:5Kpcs/Reel |

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