

SL54A SCHOTTKY RECTIFIER

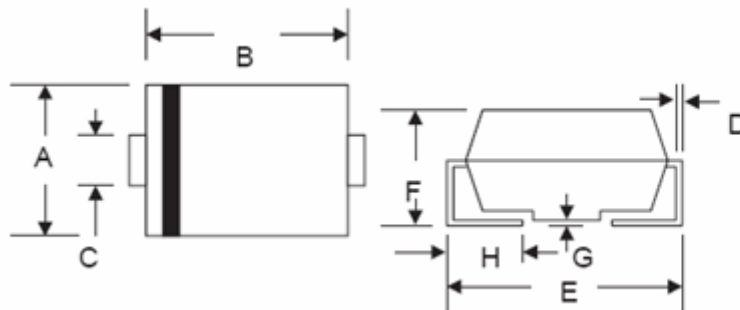
Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Features:

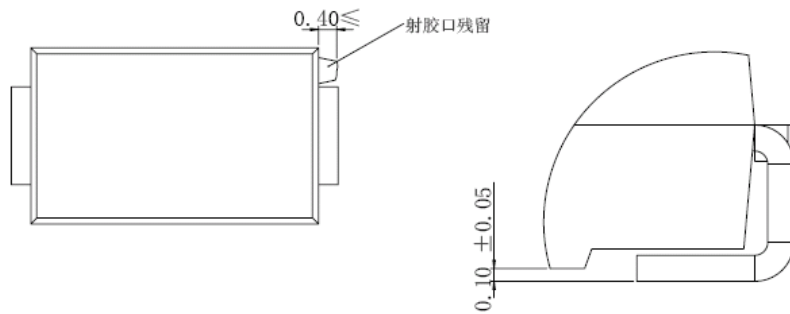
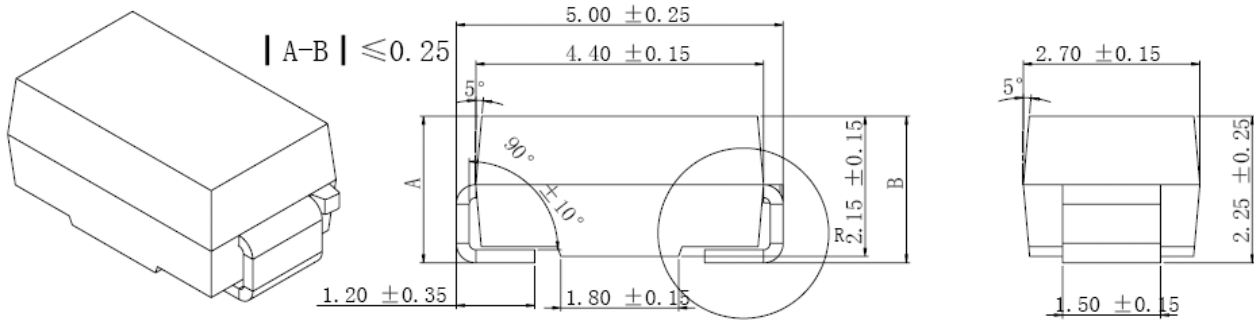
- Schottky Barrier Chip
- Guard Ring Die Construction for Transient Protection
- High Current Capability
- Low Power Loss, High Efficiency
- High Surge Current Capability
- For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions (In mm / Inches)



| SMA/DO-214AC | | | | |
|--------------|-------|-------|---------|-------|
| Dim | Min | Max | Min | Max |
| A | 2.50 | 2.90 | 0.098 | 0.114 |
| B | 4.00 | 4.60 | 0.157 | 0.181 |
| C | 1.40 | 1.60 | 0.055 | 0.063 |
| D | 0.152 | 0.305 | 0.006 | 0.012 |
| E | 4.80 | 5.28 | 0.189 | 0.208 |
| F | 2.00 | 2.44 | 0.079 | 0.096 |
| G | 0.051 | 0.203 | 0.002 | 0.008 |
| H | 0.76 | 1.52 | 0.030 | 0.060 |
| | In mm | | In inch | |

OPTION 1



OPTION 2(JK)

SMA



Marking Diagram:



Where XXXXX is YYWWL

- SL = Device Type
- 5 = Forward Current (5A)
- 4 = Reverse Voltage (40V)
- A = Package type
- YY = Year
- WW = Week
- L = Lot Number

Cautions : Molding resin
Epoxy resin UL:94V-0

Ordering Information:

| Device | Package | Shipping |
|--------|------------------|----------------|
| SL54A | SMA (Pb-Free) | 5000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

| Characteristics | Symbol | Condition | Max. | Units |
|---|-------------|--|------|-------|
| Peak Inverse Voltage | V_{RWM} | - | 40 | V |
| Max. Average Forward | $I_{F(AV)}$ | 50% duty cycle @TC =105°C rectangular wave form(L=0.375") | 5.0 | A |
| Max. Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, half Sine pulse | 190 | A |



Electrical Characteristics:

| Characteristics | Symbol | Condition | Max. | Units |
|------------------------------|----------|--|------|-------|
| Max. Forward Voltage Drop | V_{F1} | @ 5A, Pulse, $T_J = 25^\circ\text{C}$ | 0.5 | V |
| Max. Reverse Current | I_{R1} | @ $V_R = \text{rated VR}$ $T_J = 25^\circ\text{C}$ | 1.0 | mA |
| | I_{R2} | @ $V_R = \text{rated VR}$ $T_J = 100^\circ\text{C}$ | 30 | mA |
| Typical Junction Capacitance | C_j | @ $V_R = 5.0 \text{ V}$, $T_C = 25^\circ\text{C}$ $f_{\text{SIG}} = 1\text{MHz}$ | 200 | pF |

* Pulse Width < 300 μs , Duty Cycle <2%

Thermal-Mechanical Specifications:

| Characteristics | Symbol | Condition | Specification | Units |
|---|-----------------------|--------------|---------------|--------------------|
| Max. Junction Temperature | T_J | - | -55 to +125 | $^\circ\text{C}$ |
| Max. Storage Temperature | T_{stg} | - | -55 to +150 | $^\circ\text{C}$ |
| Maximum Thermal Resistance Junction to Case | $R_{\theta\text{JC}}$ | DC operation | 8 | $^\circ\text{C/W}$ |
| Approximate Weight | wt | - | 0.11 | g |
| Case Style | SMA | | | |

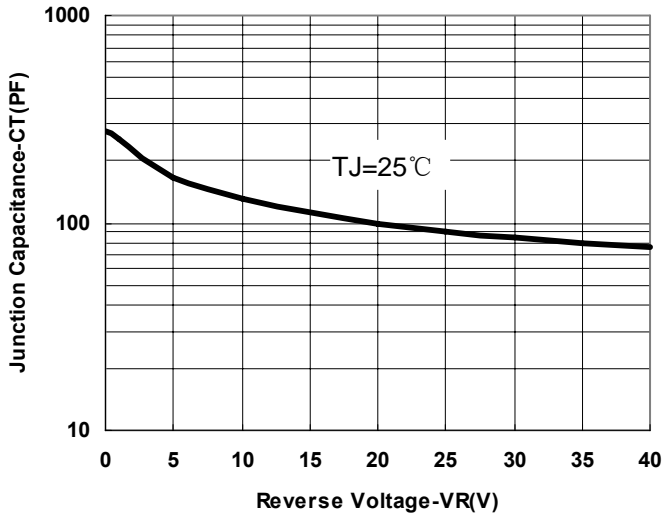


Fig.1-Typical Junction Capacitance

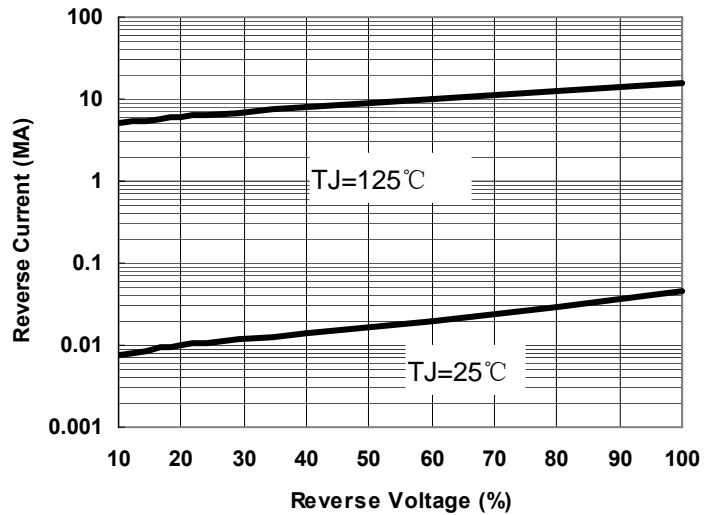


Fig.2-Typical Reverse Characteristics

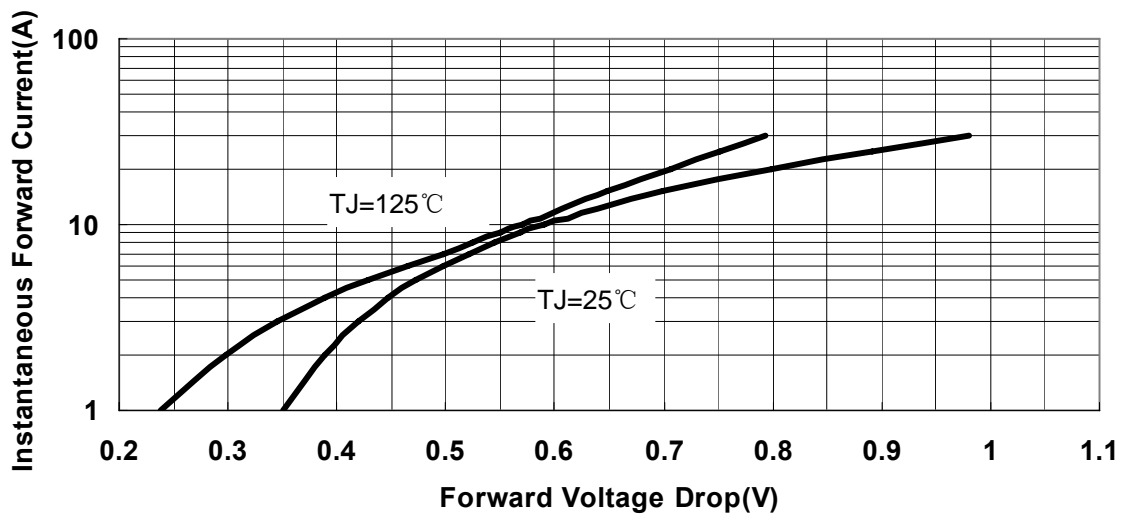


Fig.3-Typical Instantaneous Forward Voltage Characteristics



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