

### ■ Features

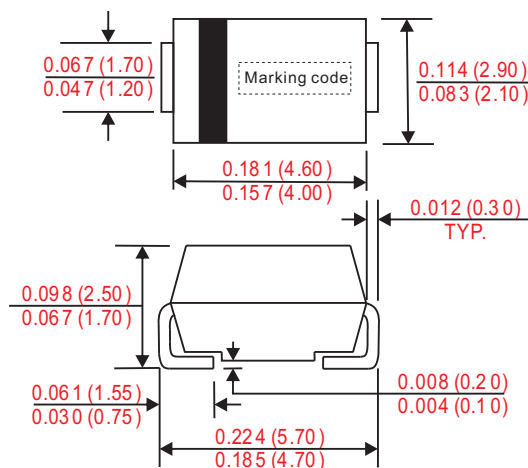
- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Suffix "G" indicates Halogen-free part, ex. SLL12AG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AC / SMA
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.002 ounce, 0.055 gram

### ■ Outline

SMA(DO-214AC)



Dimensions in inches and (millimeters)

### ■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Parameter                  | Conditions                                                           | Symbol          | MIN. | TYP. | MAX. | UNIT |
|----------------------------|----------------------------------------------------------------------|-----------------|------|------|------|------|
| Forward rectified current  |                                                                      | $I_O$           |      |      | 1.0  | A    |
| Forward surge current      | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$       |      |      | 50   | A    |
| Reverse current            | $V_R = V_{RRM} \quad T_A = 25^\circ\text{C}$                         | $I_R$           |      |      | 1.0  | mA   |
|                            | $V_R = V_{RRM} \quad T_A = 100^\circ\text{C}$                        |                 |      |      | 20   |      |
| Diode junction capacitance | f=1MHz and applied 4V DC reverse voltage                             | $C_J$           |      | 130  |      | pF   |
| Thermal resistance         | Junction to ambient                                                  | $R_{\theta JA}$ |      | 80   |      | °C/W |
| Storage temperature        |                                                                      | $T_{STG}$       | -55  |      | +150 | °C   |

| Symbol | Marking code | Max. repetitive peak reverse voltage<br>$V_{RRM}$ (V) | Max. RMS voltage<br>$V_{RMS}$ (V) | Max. DC blocking voltage<br>$V_R$ (V) | Max. forward voltage<br>@1A, $T_A = 25^\circ\text{C}$<br>$V_F$ (V) | Operating temperature<br>$T_J$ (°C) |
|--------|--------------|-------------------------------------------------------|-----------------------------------|---------------------------------------|--------------------------------------------------------------------|-------------------------------------|
| SLL12A | SLL12        | 20                                                    | 14                                | 20                                    | 0.33                                                               | -55 ~ +100                          |
| SLL14A | SLL14        | 40                                                    | 28                                | 40                                    | 0.35                                                               |                                     |

### ■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

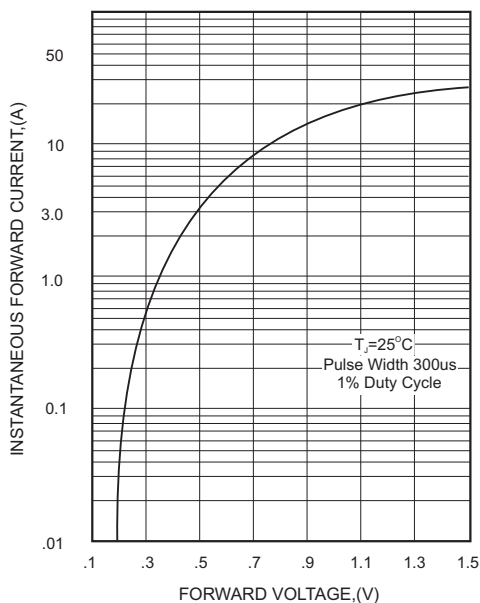


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

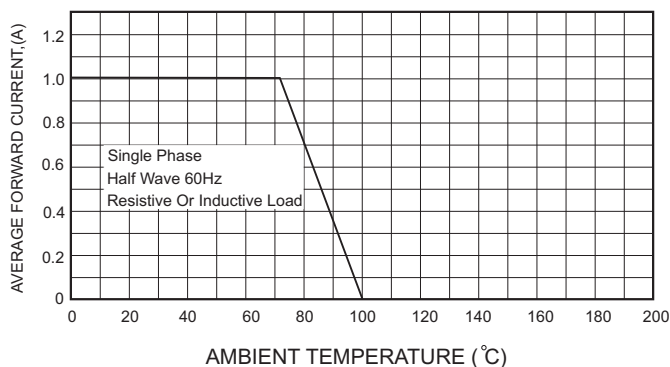


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

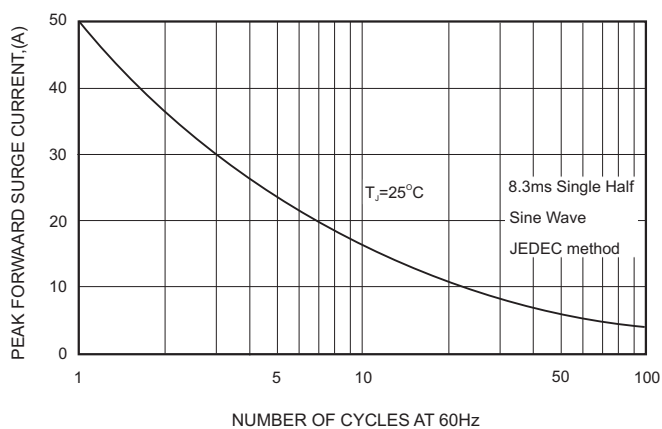


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

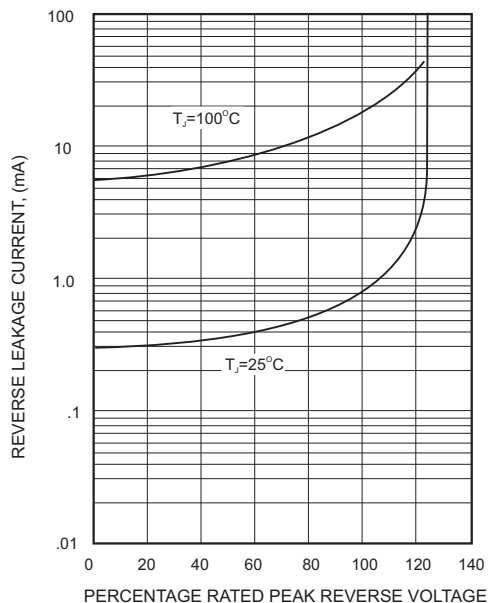
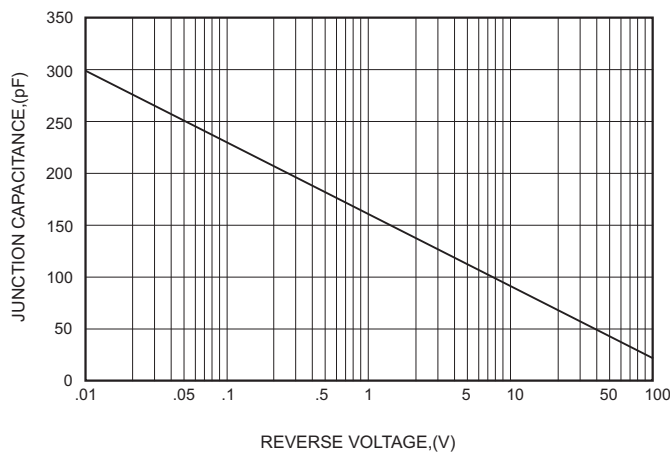
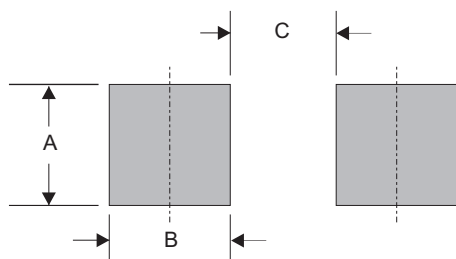


FIG.5-TYPICAL JUNCTION CAPACITANCE



### ■ SMA foot print



| A            | B            | C            |
|--------------|--------------|--------------|
| 0.068 (1.70) | 0.104 (2.60) | 0.060 (1.50) |

Dimensions in inches and (millimeters)

- CITC reserves the right to make changes to this document and its products and specifications at any time without notice.
- Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
- CITC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does CITC assume any liability for application assistance or customer product design.
- CITC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.
- No license is granted by implication or otherwise under any intellectual property rights of CITC.
- CITC products are not authorized for use as critical components in life support devices or systems without express written approval of CITC.