# SLS12C THRU SLS14C

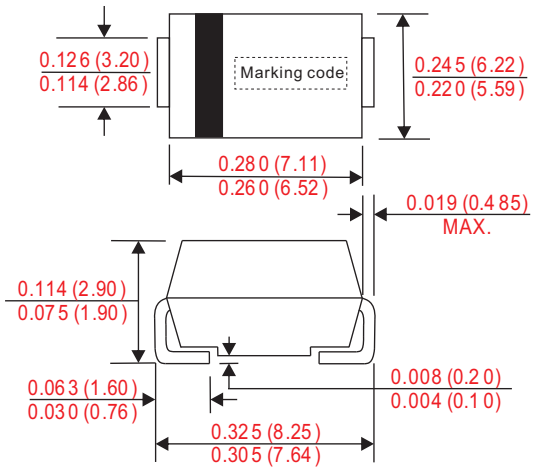
**1A Surface Mount Schottky Barrier Rectifiers**

## ■ 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.SLS12CG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

## ■ Outline

SMC(DO-214AB)




Dimensions in inches and (millimeters)

## ■ Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, DO-214AB / SMC
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.007 ounce, 0.226 gram

## ■ 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 | See Fig.2 | $I_O$ | | | 1.0 | A |
| Forward surge current | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | $I_{FSM}$ | | | 30 | A |
| Reverse current | $V_R = V_{RRM}$ $T_A = 25°C$ | $I_R$ | | | 1.0 | mA |
| | $V_R = V_{RRM}$ $T_A = 100°C$ | | | | 20 | |
| Diode junction capacitance | f=1MHz and applied 4V DC reverse voltage | $C_J$ | | 160 | | pF |
| Thermal resistance | Junction to ambient | $R_{\theta JA}$ | | 70 | | °C/W |
| Storage temperature | | $T_{STG}$ | -55 | | +150 | °C |

| Symbol | Marking code | Max. repetitive peak reverse voltage $V_{RRM}$ (V) | Max. RMS voltage $V_{RMS}$ (V) | Max. DC blocking voltage $V_R$ (V) | Max. forward voltage @1A, $T_A = 25°C$ $V_F$ (V) | Operating temperature $T_J$ (°C) |
|---|---|---|---|---|---|---|
| SLS12C | SLS12 | 20 | 14 | 20 | 0.33 | -55 ~ +100 |
| SLS14C | SLS14 | 40 | 28 | 40 | | |



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■ Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

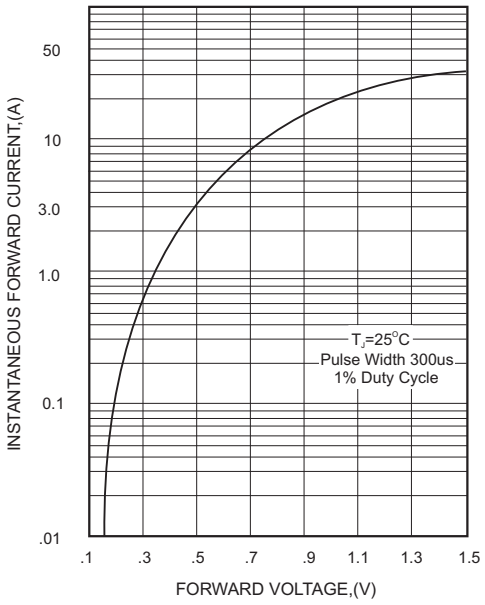



FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

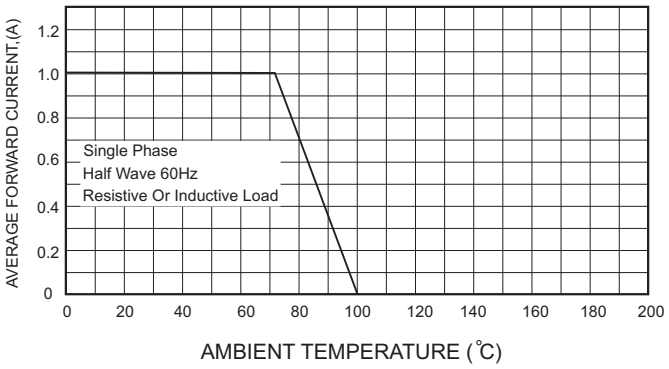



FIG.3 - TYPICAL REVERSE CHARACTERISTICS

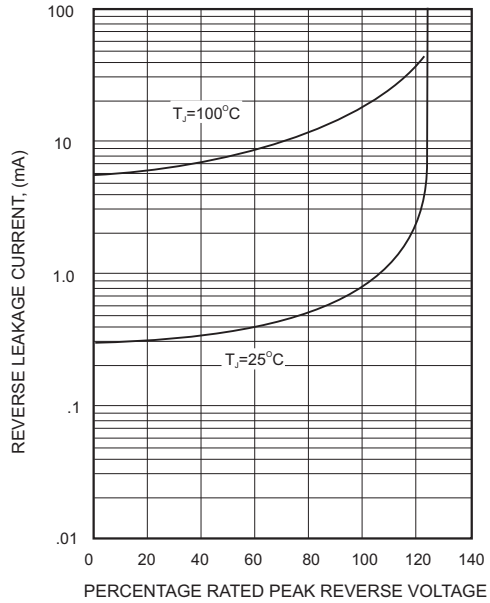



FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

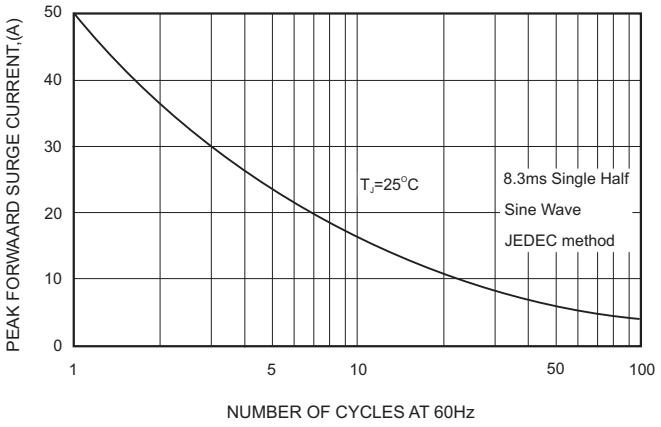
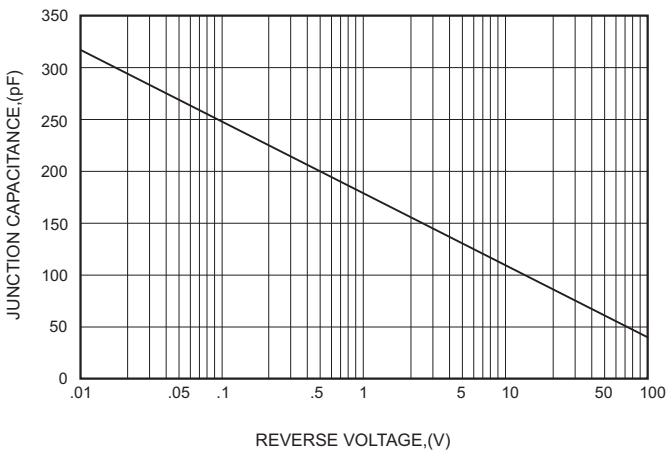


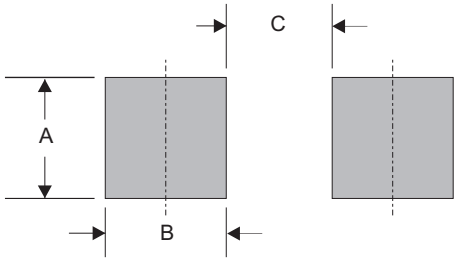

FIG.5-TYPICAL JUNCTION CAPACITANCE






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■ SMC foot print




| A | B | C |
|---|---|---|
| 0.132 (3.30) | 0.098 (2.50) | 0.176 (4.40) |

Dimensions in inches and (millimeters)

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