



Data Sheet

Customer :

Product : Small Signal Schottky Diode-Low VF

Part No.: SLS12A/SLS13A/SLS14A

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1 Amperes Surface Mount Schottky Barrier Rectifiers

Voltage : 20 to 40Volts

Features

- Low profile surface mounted application in order to optimize board space
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guardring for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- Lead-free parts meet environmental standards of MIL-STD-19500/228
- Halogen free



Mechanical Data

Epoxy : UL94-V0 rated flame retardant

Case : Molded Plastic, DO-214AC/SMA

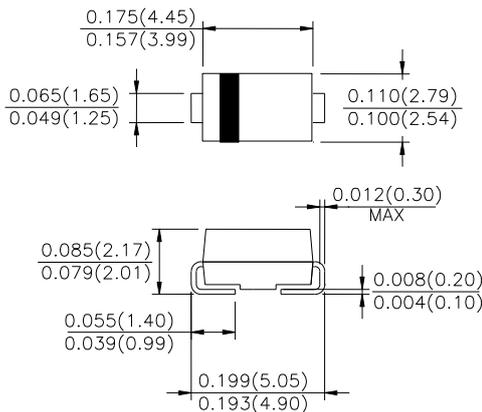
Terminals : Solder plated, Solderable per MIL-STD-750, Method 2026

Polarity : Indicated by cathode end

Weight : 0.002 ounce, 0.055 gram

Packaging : 1.5Kpcs per 7" reel
5Kpcs per 13" reel

Package Dimensions in inches(millimeters): DO-214AC/SMA



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 | Symbol | SLS12A | SLS13A | SLS14A | Unit |
|--|-----------|------------|--------|--------|------|
| Marking Code | | SLS12 | SLS13 | SLS14 | |
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 20 | 30 | 40 | V |
| Maximum RMS Voltage | V_{RMS} | 14 | 21 | 28 | V |
| Maximum DC Blocking Voltage | V_{DC} | 20 | 30 | 40 | V |
| Maximum Instantaneous Forward Voltage@1.0A, $T_A=25^\circ\text{C}$ | V_F | 0.33 | | | V |
| Operating Temperature | T_J | -50 ~ +100 | | | °C |

| 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 | $V_R=V_{RRM}, T_A=25^\circ\text{C}$ | I_R | | | 1.0 | mA |
| | $V_R=V_{RRM}, T_A=100^\circ\text{C}$ | | | | 20 | |
| Thermal Resistance | Junction to ambient | $R_{\theta JA}$ | | 70 | | °C/W |
| Diode Junction Capacitance | f=1MHz and applied 4V DC reverse voltage | C_J | | 160 | | pF |
| Storage Temperature | | T_{STG} | -50 | | +150 | °C |

Rated and Characteristic Curve

FIG.1-TYPICAL FORWARD CHARACTERISTICS

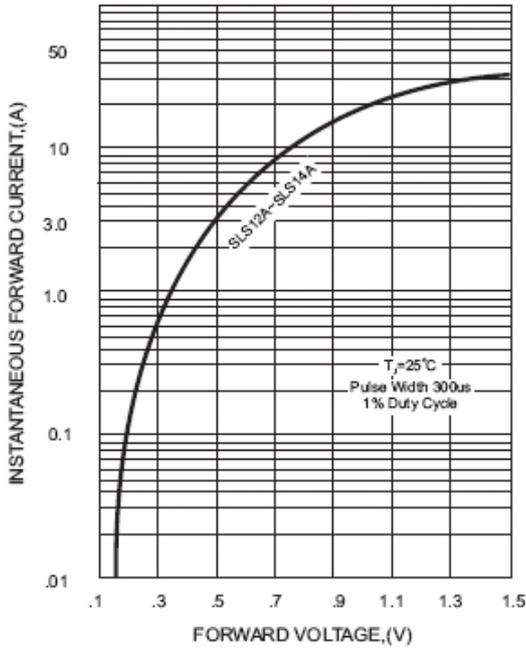


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

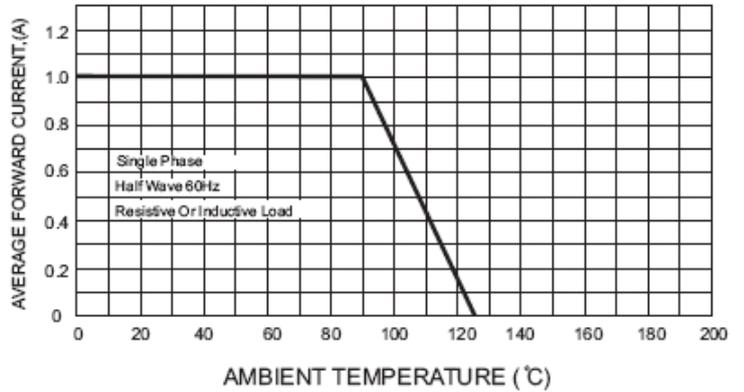


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

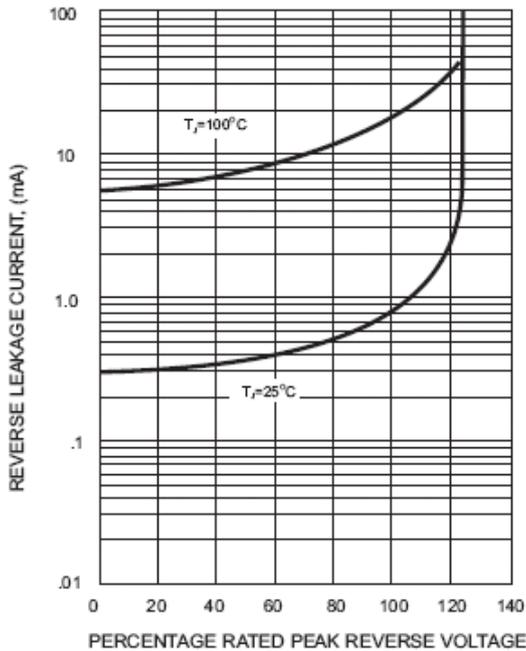


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

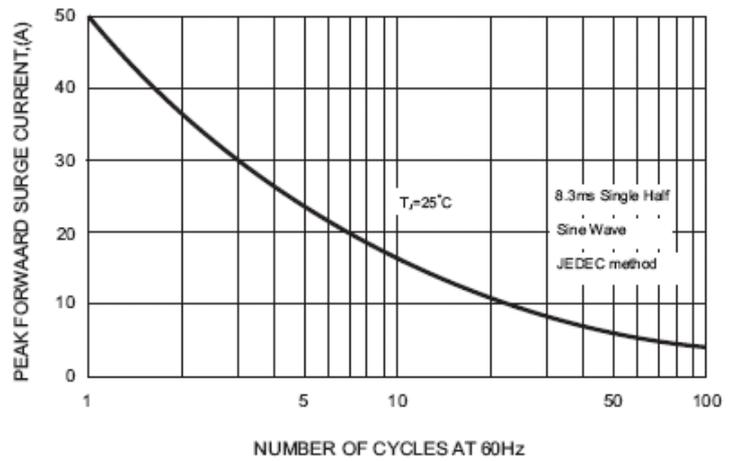


FIG.5-TYPICAL JUNCTION CAPACITANCE

