

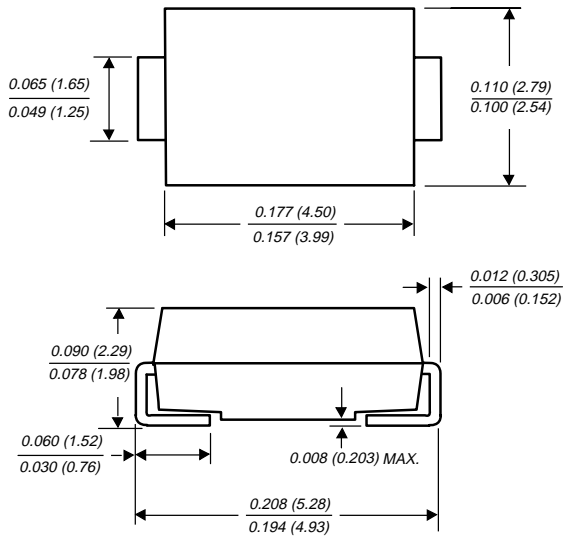
SS12 THRU SS16

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 60 Volts

Forward Current - 1.0 Ampere

DO-214AC



Dimensions in inches and (millimeters)

FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability classification 94V-0
- ◆ For surface mount applications
- ◆ Low profile package
- ◆ Built-in strain relief
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High current capability, low forward voltage drop
- ◆ High surge capability
- ◆ For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- ◆ Guardring for overvoltage protection
- ◆ High temperature soldering guaranteed: 250°C/10 seconds on terminals



MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic body

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

Polarity: Color band denotes cathode end

Weight: 0.002 ounce 0.064 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | SS12 | SS13 | SS14 | SS15 | SS16 | UNITS |
|---|--------------------------------------|--------------|------|------|-------------|------|-------|
| Device marking code | | S2 | S3 | S4 | S5 | S6 | |
| Maximum repetitive peak reverse voltage | V _{RRM} | 20 | 30 | 40 | 50 | 60 | Volts |
| Maximum RMS voltage | V _{RMS} | 14 | 21 | 28 | 35 | 42 | Volts |
| Maximum DC blocking voltage | V _{DC} | 20 | 30 | 40 | 50 | 60 | Volts |
| Maximum average forward rectified current at T _L (SEE FIG. 1) | I _(AV) | 1.0 | | | | | Amp |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 40.0 | | | | | Amps |
| Maximum instantaneous forward voltage at 1.0A (NOTE 1) | V _F | 0.50 | | | 0.75 | | Volts |
| Maximum DC reverse current (NOTE 1) at rated DC blocking voltage | I _R | 0.2 | | | | | mA |
| | | 6.0 | | | 5.0 | | |
| Typical thermal resistance (NOTE 2) | R _{θJA} R _{θJL} | 88.0 28.0 | | | | | °C/W |
| Operating junction temperature range | T _J | -65 to +125 | | | -65 to +150 | | °C |
| Storage temperature range | T _{STG} | -65 to +150 | | | | | °C |

NOTES:

(1) Pulse test: 300μs pulse width, 1% duty cycle

(2) P.C.B. mounted with 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES SS12 THRU SS16

FIG. 1 - FORWARD CURRENT DERATING CURVE

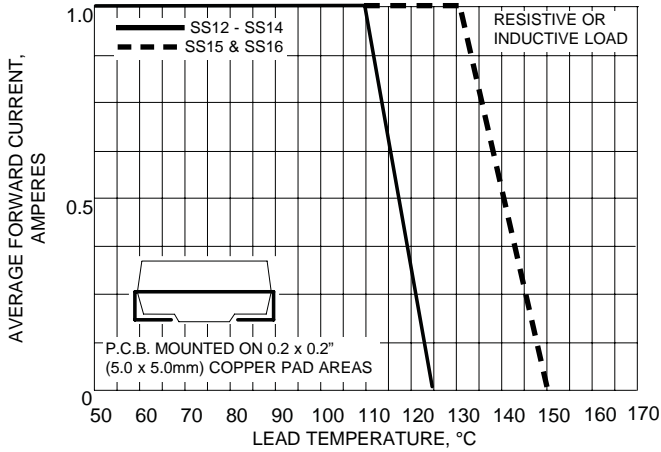


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

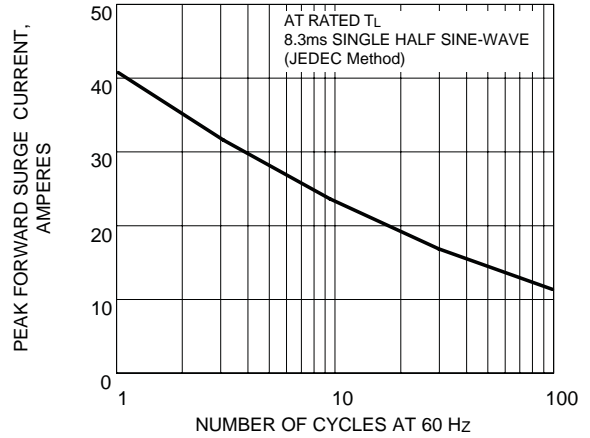


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

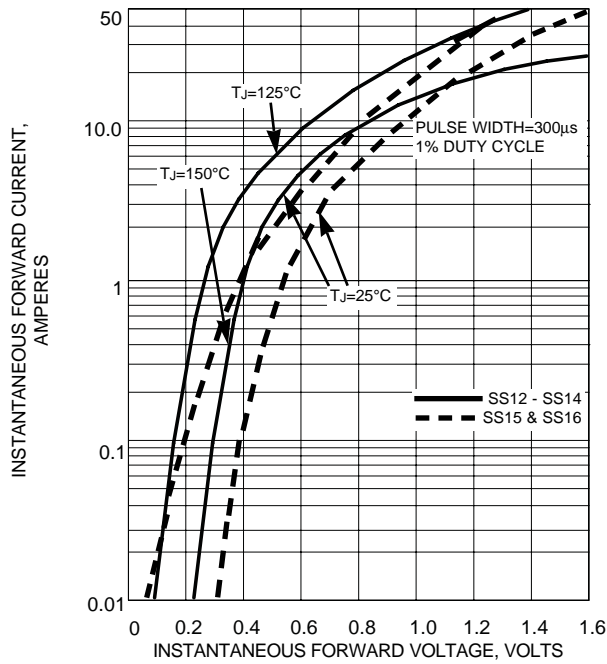


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

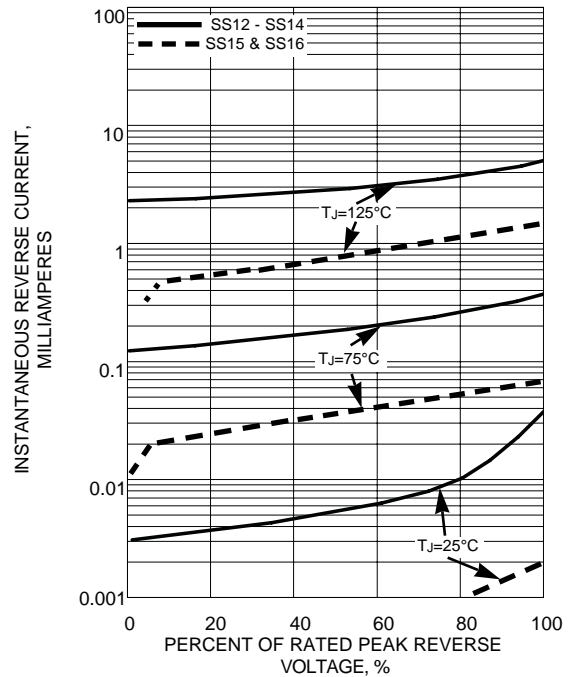


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

