

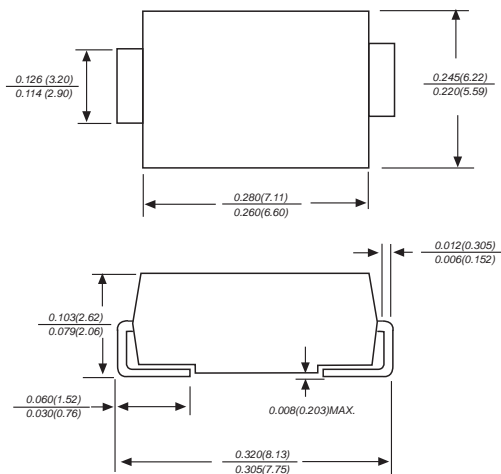


SS82 THRU SS810

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 8.0 Amperes

DO-214AB/SMC



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AB molded plastic body
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.007 ounce, 0.25grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

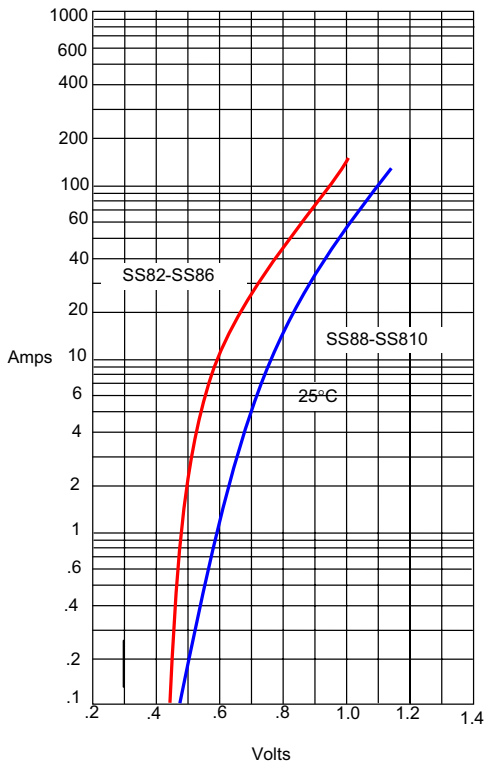
Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| MDD Catalog Number | SYMBOLS | SS82 | SS83 | SS835 | SS84 | SS845 | SS86 | SS88 | SS810 | UNITS |
|---|-----------------|-------------|------|-------|------|-------|------|------|-------|--------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 35 | 40 | 45 | 60 | 80 | 100 | VOLTS |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 24.5 | 28 | 31.5 | 42 | 56 | 70 | VOLTS |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 35 | 40 | 45 | 60 | 80 | 100 | VOLTS |
| Maximum average forward rectified current at $T_L = 95^\circ C$ | $I_{(AV)}$ | 8.0 | | | | | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 200.0 | | | | | | | | Amps |
| Maximum instantaneous forward voltage at 8.0A | V_F | 0.65 | | | | | | 0.85 | | Volts |
| Maximum DC reverse current $T_A = 25^\circ C$ at rated DC blocking voltage $T_A = 100^\circ C$ | I_R | 1 | | | | | | | | mA |
| | | 20 | | | | | | | | |
| Typical junction capacitance (NOTE 1) | C_J | 400 | | | | | | | | pF |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 18.0 | | | | | | | | $^\circ C/W$ |
| Operating junction temperature range | T_J | -50 to +150 | | | | | | | | $^\circ C$ |
| Storage temperature range | T_{STG} | -50 to +150 | | | | | | | | $^\circ C$ |

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

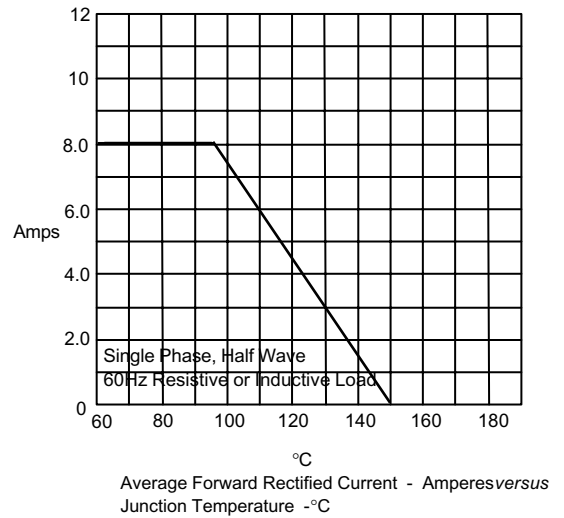
RATINGS AND CHARACTERISTIC CURVES SS82 THRU SS810

Figure 1
Typical Forward Characteristics



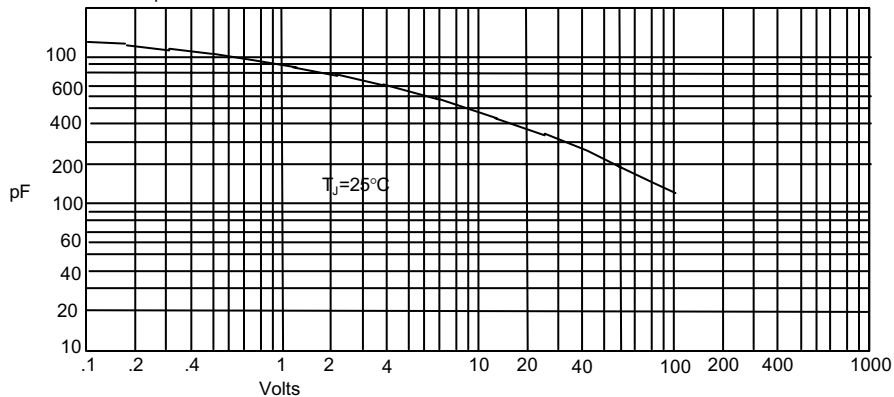
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Junction Temperature - °C

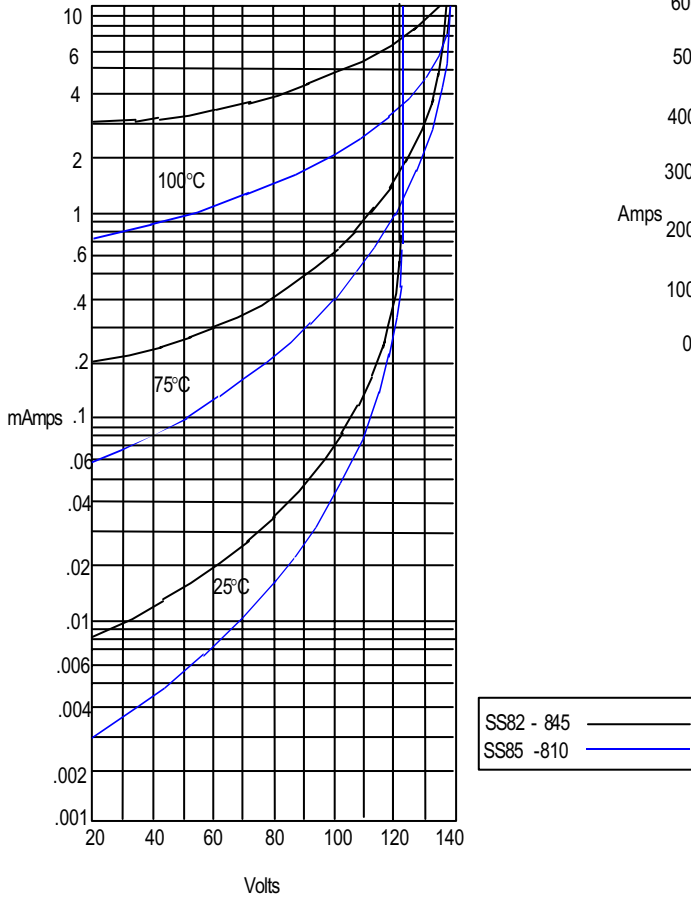
Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts

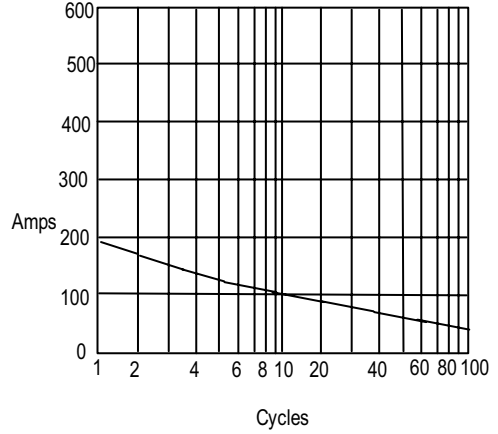
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Figure 4
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles