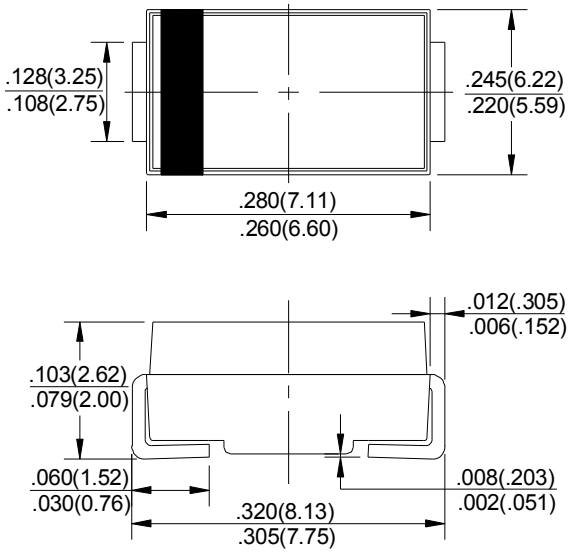
CURRENT 10 Ampere
VOLTAGE RANG 50 to 1000 Volts

# S10AC THRU S10MC

**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℃/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℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

| | *SYMBOLS* | S10A | S10B | S10D | S10G | S10J | S10K | S10M | UNITS |
|---|---|---|---|---|---|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum RMS voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | VOLTS |
| Maximum DC blocking voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum average forward rectified current at $T_L$=75℃ | $I_{(AV)}$ | 10.0 | | | | | | | 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 10.0A | $V_F$ | 1.2 | | | | | | | Volts |
| Maximum DC reverse current $T_A$=25℃<br>at rated DC blocking voltage $T_A$=100℃ | $I_R$ | 10.0<br>100.0 | | | | | | | μA |
| Typical junction capacitance (NOTE 1) | $C_J$ | 60.0 | | | | | | | pF |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 10.0 | | | | | | | °C/W |
| Operating junction and storage temperature range | $T_J$,$T_{STG}$ | -55 to +150 | | | | | | | °C |

*Pulse test: Pulse width 200 μsec, Duty cycle 2%

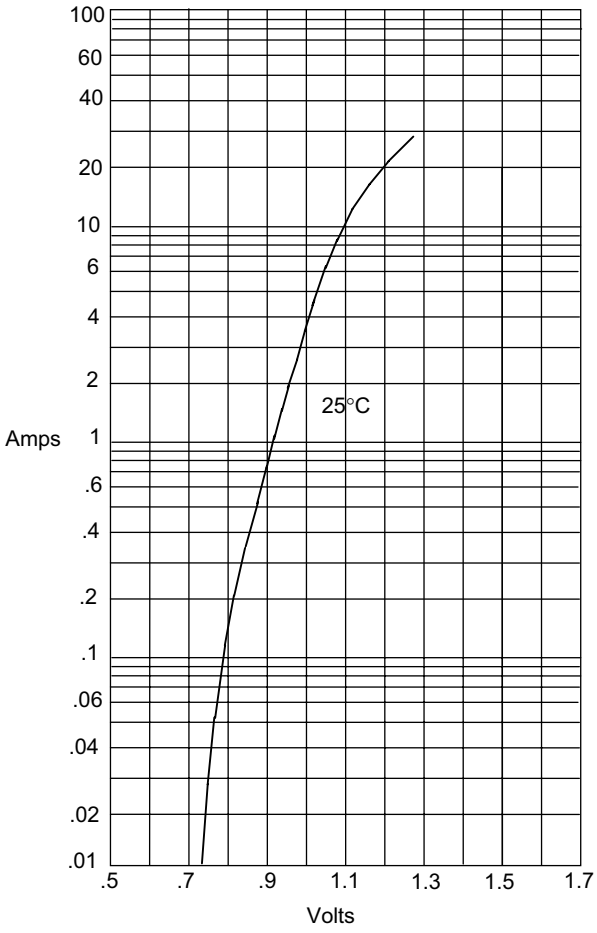
Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

CURRENT 10 Ampere
VOLTAGE RANG 50 to 1000 Volts

# S10AC THRU S10MC

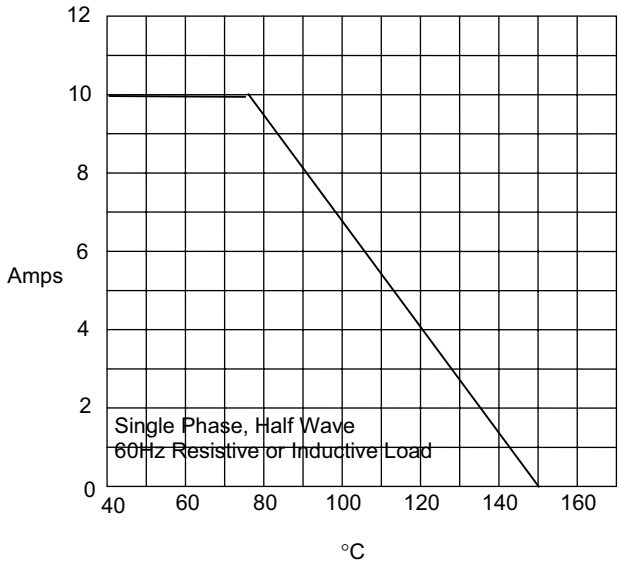
## RATING AND CHRACTERISTIC CURVES S10A Thru S10M

Figure 1
Typical Forward Characteristics



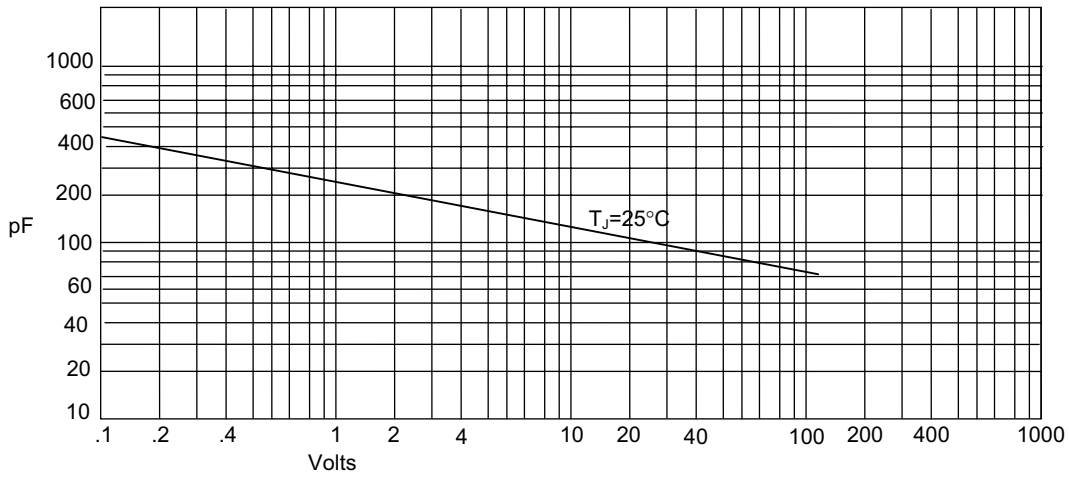

Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve




Average Forward Rectified Current - Amperes *versus*
Case Temperature - °C

Figure 3
Junction Capacitance



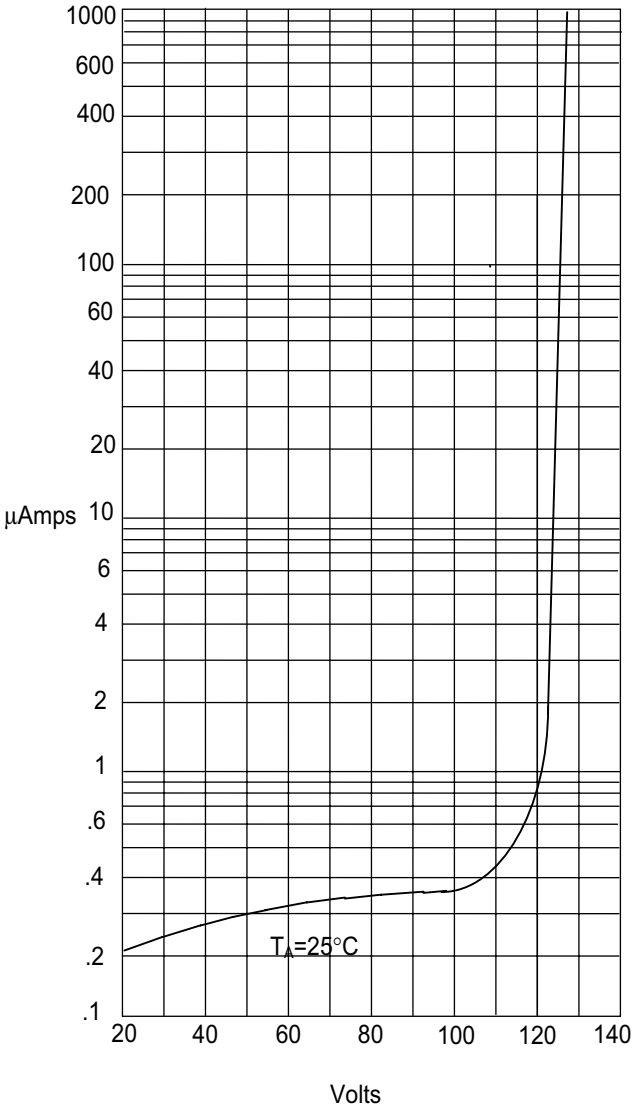

Junction Capacitance - pF *versus*
Reverse Voltage - Volts

CURRENT 10 Ampere
VOLTAGE RANG 50 to 1000 Volts

# S10AC THRU S10MC

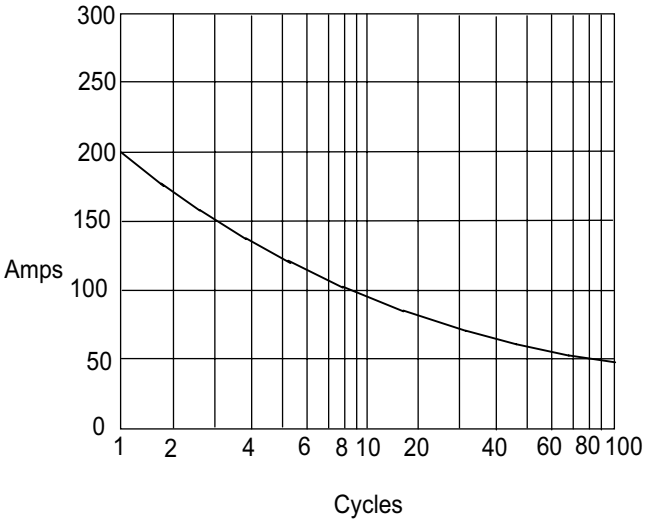
## RATING AND CHRACTERISTIC CURVES S10A Thru S10M

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