**Voltage Range 50 to 1000 V**

**Current 2.0 Ampere**

## Features

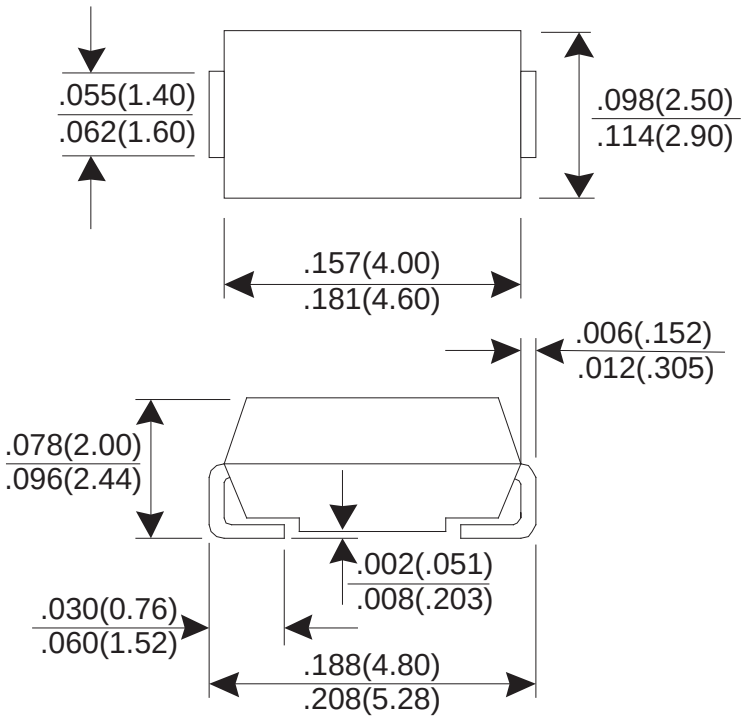
- ✶ Low forward voltage drop
- ✶ High current capability
- ✶ Low reverse leakage current
- ✶ High surge current capability
- ✶ Glass passivated chip
- ✶ Dice size : 1.48mm

## Mechanical Data

- ✶ Case: Molded plastic SMA/DO-214AC
- ✶ Epoxy: UL 94V-0 rate flame retardant
- ✶ Terminals: Solderable per MIL-STD-750 method 2026
- ✶ Polarity:Color band denotes cathode end
- ✶ Mounting position: Any
- ✶ Weight: 0.064 gram

## Dimensions in inches and (millimeters)

# SMA/DO-214AC



## 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%.

| PARAMTER | SYMBOL | TS2AA | TS2BA | TS2DA | TS2GA | TS2JA | TS2KA | TS2MA | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current $T_A$=110°C | $I_{(AV)}$ | 2.0 | | | | | | | A |
| Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method) | $I_{FSM}$ | 60 | | | | | | | A |
| Maximum Instantaneous Forward Voltage @ 2.0 A | $V_F$ | 1.1 | | | | | | | V |
| Maximum DC Reverse Current @$T_J$=25°C<br>At Rated DC Blocking Voltage @$T_J$=125°C | $I_R$ | 5.0<br>100 | | | | | | | uA<br>uA |
| Typical junction Capacitance (Note 1) | $C_J$ | 20 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 20 | | | | | | | °C/W |
| Operating Junction and Storage Temperature Range | $T_J$,$T_{STG}$ | -55 to +150 | | | | | | | °C |

NOTES : (1) Thermal Resistance junction to ambient.
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.

## RATING AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

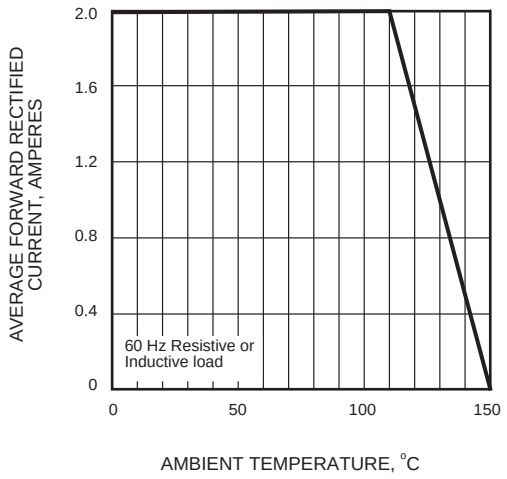



FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

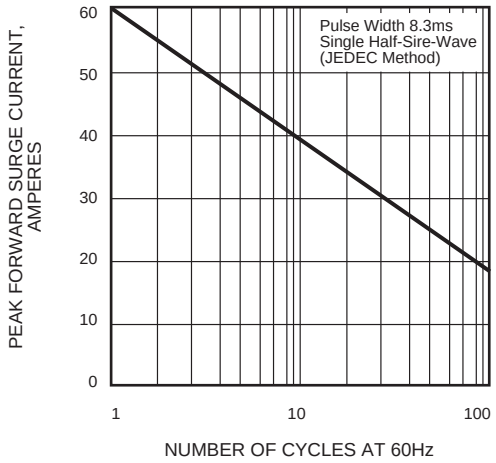



FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

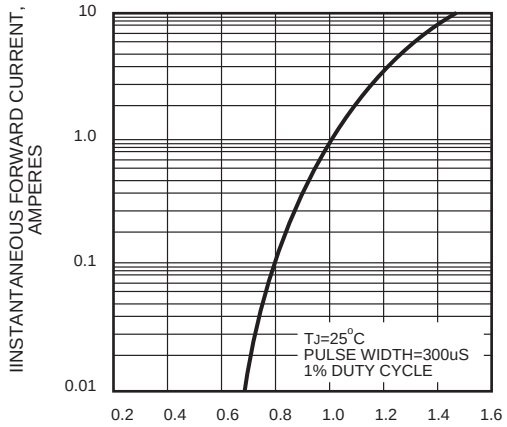



FIG.4 - TYPICAL REVERSE CHARACTERISTICS

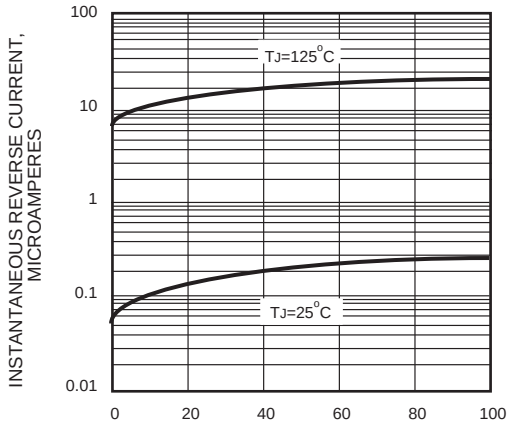



FIG.5 - TYPICAL JUNCTION CAPACITANCE