



## Features

- Average Forward Current:  $I_{F(AV)}=2A$
- Polarity: Color band denotes cathode



**SMA  
(DO-214AC)**

## Package Marking and Ordering Information

| Product ID | Pack              | Brand      | Qty(PCS) |
|------------|-------------------|------------|----------|
| US2xA      | SMA<br>(DO-214AC) | HXY MOSFET | 2000     |

x: From A-M



## Maximum Ratings (Ta=25°C unless otherwise noted)

| Item                                 | Symbol             | Unit | Test Conditions                                | US2xA      |     |     |          |     |     |     |      |
|--------------------------------------|--------------------|------|------------------------------------------------|------------|-----|-----|----------|-----|-----|-----|------|
|                                      |                    |      |                                                | A          | B   | D   | E        | G   | J   | K   | M    |
| Repetitive Peak Reverse Voltage      | V <sub>RRM</sub>   | V    |                                                | 50         | 100 | 200 | 300      | 400 | 600 | 800 | 1000 |
| Maximum RMS Voltage                  | V <sub>RMS</sub>   | V    |                                                | 35         | 70  | 140 | 210      | 280 | 420 | 560 | 700  |
| Average Forward Current              | I <sub>F(AV)</sub> | A    | 60Hz Half-sine wave,<br>Resistance load, FIG.1 | 2.0        |     |     |          |     |     |     |      |
| Surge(Non-repetitive)Forward Current | I <sub>FSM</sub>   | A    | 60Hz Half-sine wave,<br>1 cycle, Ta=25℃        | 60         |     |     |          |     |     |     |      |
| Junction Temperature                 | T <sub>J</sub>     | ℃    |                                                | -55~+125   |     |     | -55~+150 |     |     |     |      |
| Storage Temperature                  | T <sub>STG</sub>   | ℃    |                                                | -55 ~ +150 |     |     |          |     |     |     |      |

## Electrical Characteristics(Ta=25°C unless otherwise specified)

| Item                        | Symbol               | Unit | Test Condition                    |                     | US2xA |   |   |     |   |      |   |
|-----------------------------|----------------------|------|-----------------------------------|---------------------|-------|---|---|-----|---|------|---|
|                             |                      |      |                                   |                     | A     | B | D | E   | G | J    | K |
| Peak Forward Voltage        | V <sub>F</sub>       | V    | I <sub>F</sub> =2.0A              |                     | 1.0   |   |   | 1.3 |   | 1.85 |   |
| Peak Reverse Current        | I <sub>RRM1</sub>    | mA   | V <sub>RM</sub> =V <sub>RRM</sub> | T <sub>a</sub> =25℃ | 0.05  |   |   |     |   |      |   |
|                             | T <sub>a</sub> =100℃ |      |                                   | 0.15                |       |   |   |     |   |      |   |
| Thermal Resistance(Typical) | R <sub>θJ-A</sub>    | ℃/W  | Between junction and ambient      |                     | 65    |   |   |     |   |      |   |
|                             | R <sub>θJ-L</sub>    |      | Between junction and terminal     |                     | 20    |   |   |     |   |      |   |

## Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas



## Typical Characteristics

FIG.1-TYPICAL FORWARD CHARACTERISTICS

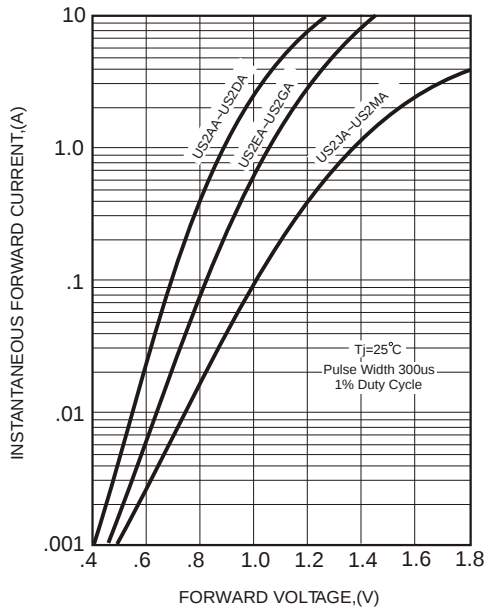


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

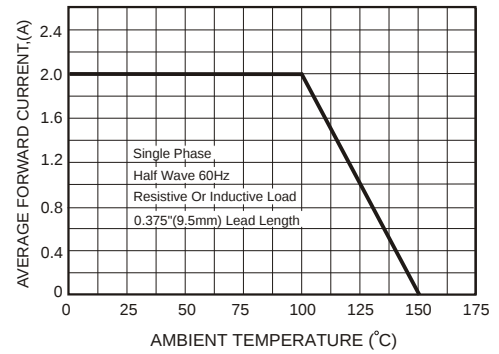
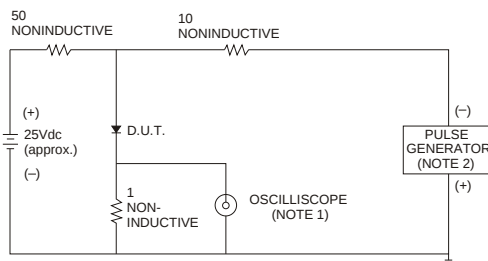


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.  
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

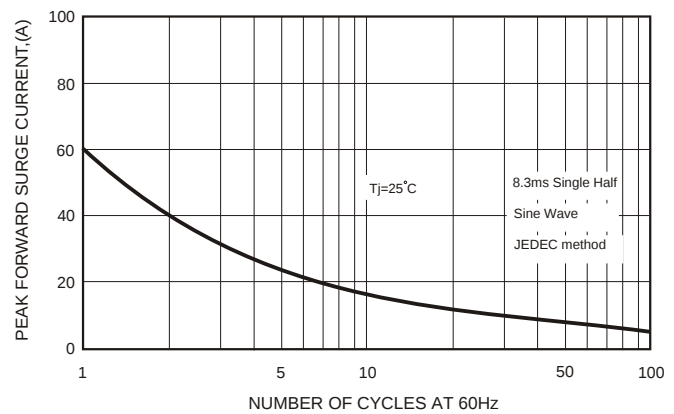
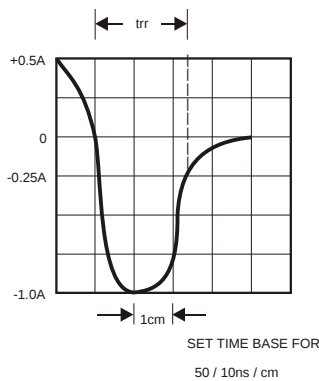
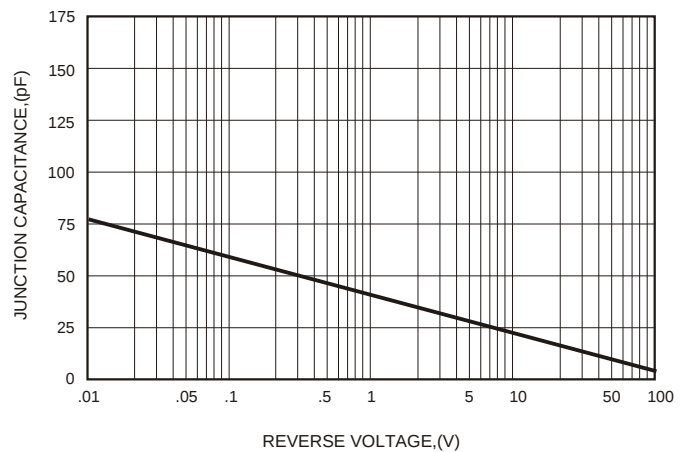
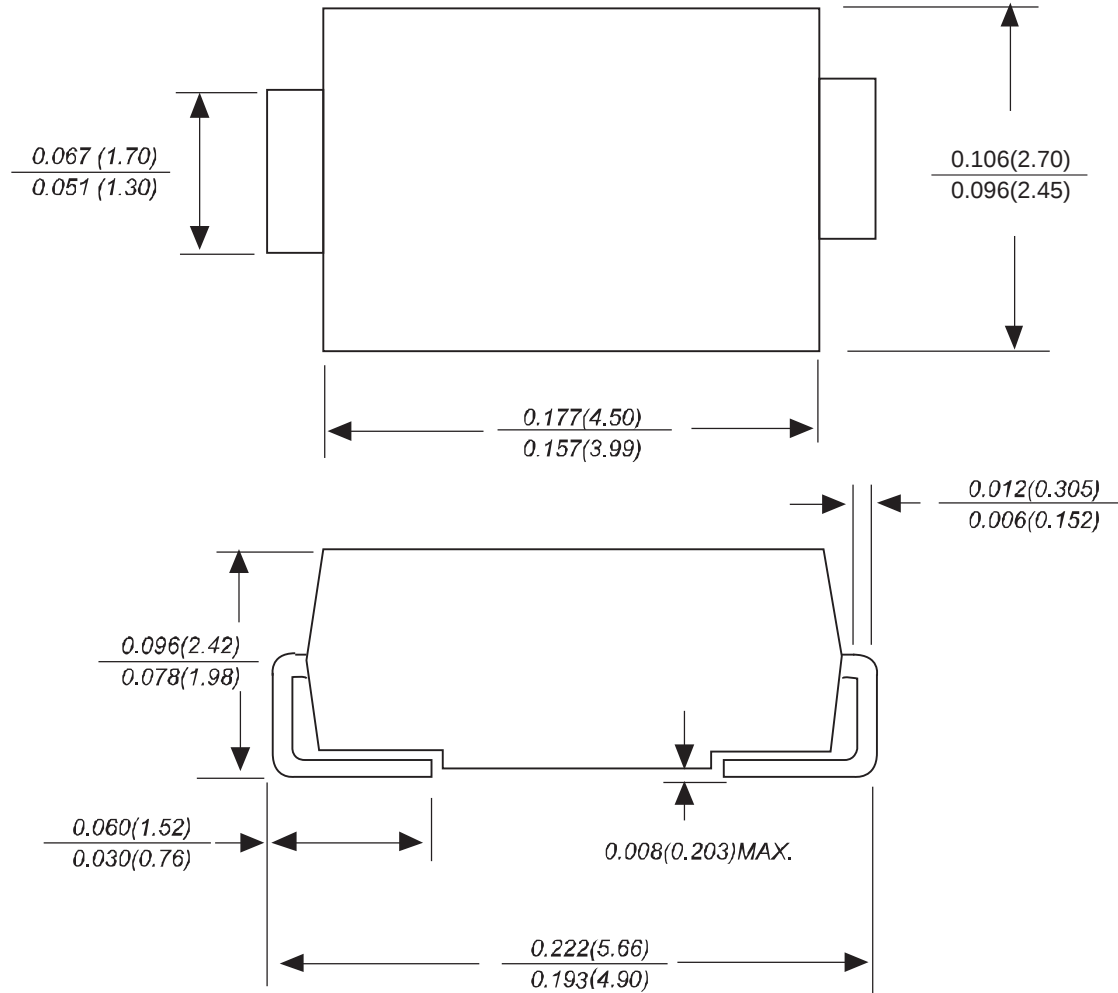


FIG.5-TYPICAL JUNCTION CAPACITANCE





**Package Outline Dimensions**  
**SMA(DO-214AC)**



*Dimensions in inches and (millimeters)*



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