

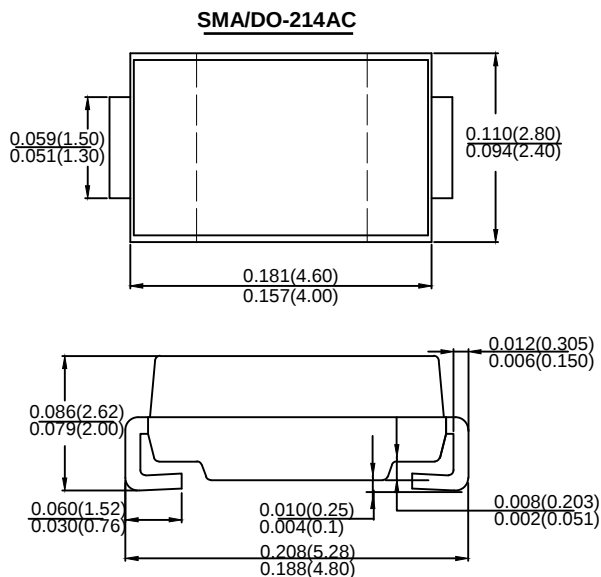
## Surface Mount Schottky Rectifiers

### Features

- Schottky Brrier Chip
- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 100APeak
- Plastic Case Material has UL Flammability Classification Rating 94V-0

### Mechanical Data

- Case: Molded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number



Dimensions in inches and (millimeters)

### 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%

| Type Number                                                                                            | SYMBOL           | SS 52       | SS 53 | SS 54 | SS 545 | SS 55 | SS 56 | SS 58 | SS 510 | SS 515 | SS 520 | SS 525 | Unit             |
|--------------------------------------------------------------------------------------------------------|------------------|-------------|-------|-------|--------|-------|-------|-------|--------|--------|--------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                                 | V <sub>RRM</sub> | 20          | 30    | 40    | 45     | 50    | 60    | 80    | 100    | 150    | 200    | 250    | V                |
| Maximum RMS Voltage                                                                                    | V <sub>RMS</sub> | 14          | 21    | 28    | 31     | 35    | 42    | 56    | 70     | 105    | 140    | 175    | V                |
| Maximum DC Blocking Voltage                                                                            | V <sub>DC</sub>  | 20          | 30    | 40    | 45     | 50    | 60    | 80    | 100    | 150    | 200    | 250    | V                |
| Average Rectified Output Current<br>@T <sub>L</sub> =100°C                                             | IF(AV)           | 5.0         |       |       |        |       |       |       |        |        |        |        | A                |
| Peak Forward Surge Current 8.3ms Single half<br>sine-wave superimposed on rated load (JEDEC<br>Method) | IFSM             | 100         |       |       |        |       |       |       |        |        |        |        | A                |
| Rating for fusing (t<8.3ms)                                                                            | I <sup>2</sup> t | 41.50       |       |       |        |       |       |       |        |        |        |        | A <sup>2</sup> s |
| Forward Voltage @IF=5.0A (Note 1)                                                                      | V <sub>FM</sub>  | 0.55        |       |       |        | 0.7   |       | 0.85  |        | 0.92   |        | 0.95   | V                |
| Peak Reverse Current @T <sub>A</sub> =25°C                                                             | I <sub>R</sub>   | 0.1         |       |       |        |       |       | 0.05  |        |        |        |        | mA               |
| At Rated DC Blocking Voltage @T <sub>A</sub> =100°C                                                    |                  | 10          |       |       |        |       |       | 5     |        |        |        |        |                  |
| Typical Junction Capacitance                                                                           | C <sub>J</sub>   | 28          |       |       |        |       |       |       |        |        |        |        | pF               |
| Typical Thermal Resistance per leg (Note 2)                                                            | R <sub>θJA</sub> | 88          |       |       |        |       |       |       |        |        |        |        | °C/W             |
| Operating Temperature Range                                                                            | T <sub>J</sub>   | -55 to +150 |       |       |        |       |       |       |        |        |        |        | °C               |
| Storage Temperature Range                                                                              | T <sub>STG</sub> | -55 to +150 |       |       |        |       |       |       |        |        |        |        | °C               |

Note: 1.Pulse Test with  $PW = 300\mu\text{sec}$ , 1%Duty Cycle.

2.Mounted on P.C.Board with  $5.0\text{ mm}^2$  (0.13mm thick) copper pad areas.

Fig. 1 Forward Current Derating Curve

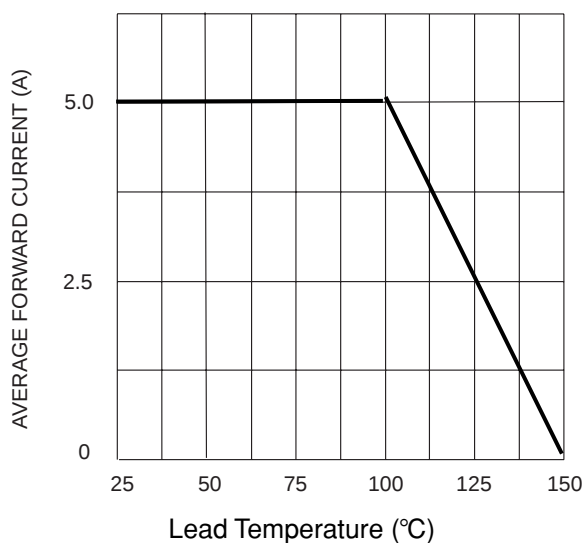


Fig. 2 Typ. Forward Characteristics

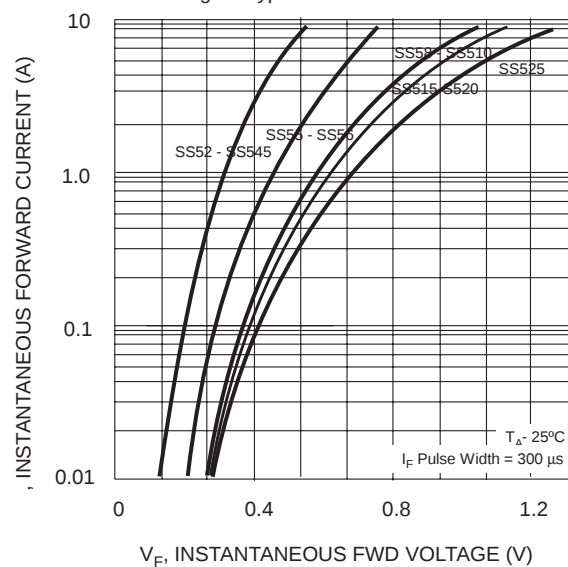


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

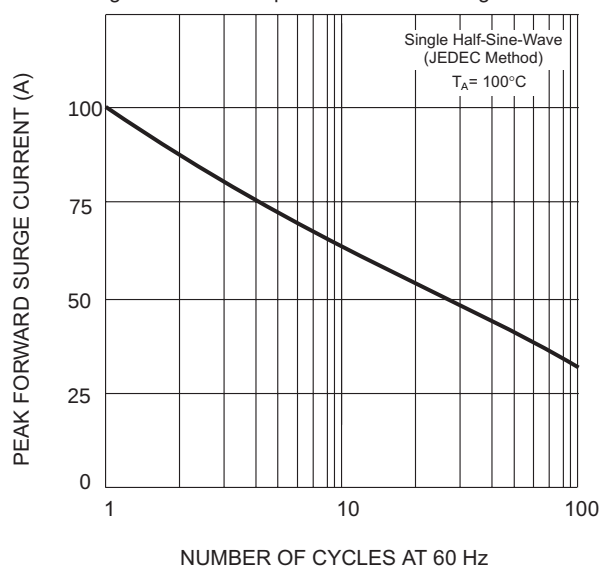
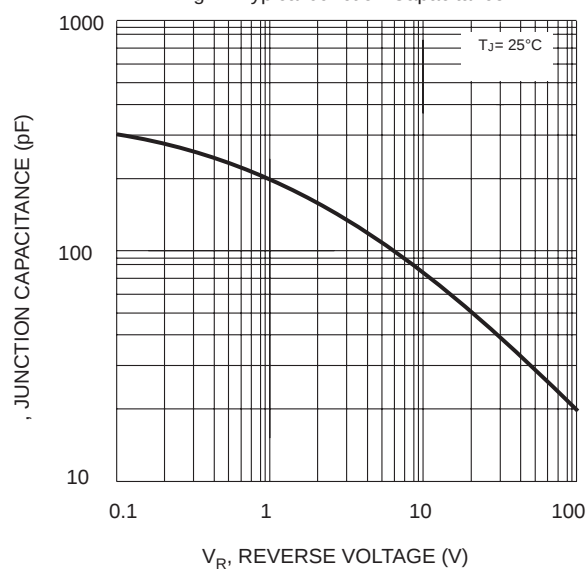


Fig. 4 Typical Junction Capacitance



SMA PAD LAYOUT

