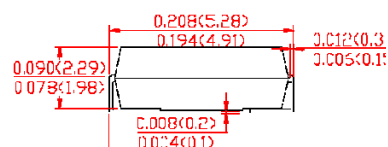
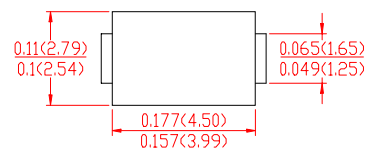


### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Low profile package
- Built-in strain relief ,ideal for automated placement
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260° C/10 seconds at terminals

### SMA(DO-214AC)



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case: JEDEC SMA(DO-214AC) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Weight: 0.002ounce,0.064 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

|                                                                                                              |            | Symbols      | SS 52        | SS 53 | SS 54 | SS 55 | SS 56 | SS 58 | SS 510 | SS 515 | SS 520 | Units |
|--------------------------------------------------------------------------------------------------------------|------------|--------------|--------------|-------|-------|-------|-------|-------|--------|--------|--------|-------|
| Maximum repetitive peak reverse voltage                                                                      |            | VRRM         | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts |
| Maximum RMS voltage                                                                                          |            | VRMS         | 14           | 21    | 28    | 35    | 42    | 57    | 71     | 105    | 140    | Volts |
| Maximum DC blocking voltage                                                                                  |            | VDC          | 20           | 30    | 40    | 50    | 60    | 80    | 100    | 150    | 200    | Volts |
| Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)                               |            | IAV          | 5.0          |       |       |       |       |       |        |        |        | Amps  |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TJ) |            | IFSM         | 150.0        |       |       |       |       |       |        |        |        | Amps  |
| Maximum instantaneous forward voltage at 5.0 A(Note 1 )                                                      |            | VF           | 0.55         |       |       | 0.70  |       | 0.85  |        | 0.90   | 0.95   | Volts |
| Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)                                   | TA = 25 C  | IR           | 0.2          |       |       |       |       |       |        |        |        | mA    |
|                                                                                                              | TA = 100 C |              | 50           |       |       | 10    |       |       |        |        |        |       |
| Typical junction capacitance(Note 3)                                                                         |            | CJ           | 500          |       |       | 400   |       |       |        |        |        | pF    |
| Typical thermal resistance (Note 2)                                                                          |            | RθJA<br>RθJL | 55.0<br>17.0 |       |       |       |       |       |        |        |        | C/W   |
| Operating junction temperature range                                                                         |            | TJ           | -65 to +150  |       |       |       |       |       |        |        |        | C     |
| Storage temperature range                                                                                    |            | TSTG         | -65 to +150  |       |       |       |       |       |        |        |        | C     |

Notes: 1 .Pulse test: 300 μs pulse width,1% duty cycle

2.Measured at 1MHz and reverse voltage of 4.0 volts

FIG.1-FORWARD CURRENT DERATING CURVE

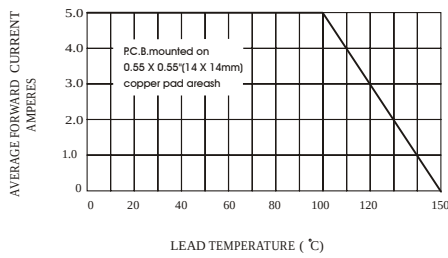


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

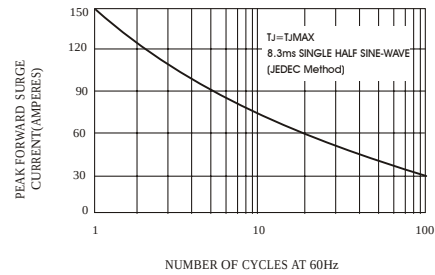


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

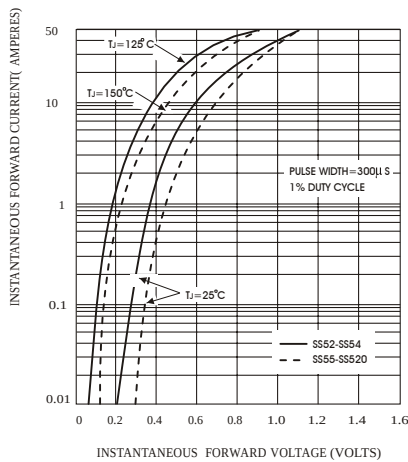


FIG.4-TYPICAL REVERSE CHARACTERISTICS

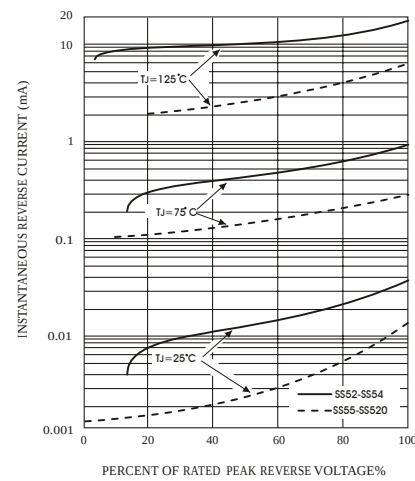


FIG.5-TYPICAL JUNCTION CAPACITANCE

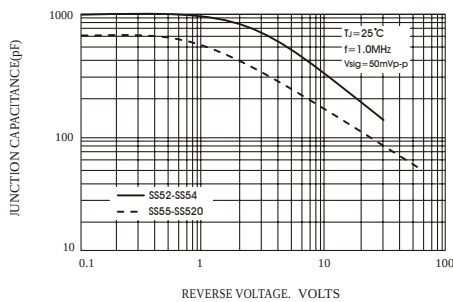


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

