

SS5A - SS5M

PRV : 50 - 1000 Volts
Io : 5.0 Amperes

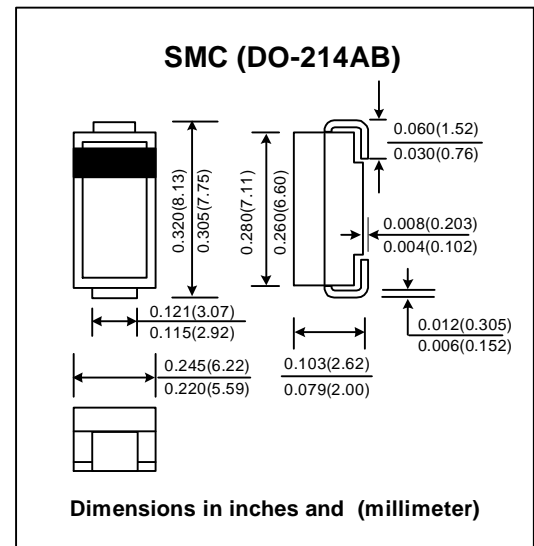
FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Super fast recovery time
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SMC Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.21 gram

SURFACE MOUNT SUPER FAST RECTIFIERS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
 Single phase, half wave, 60 Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

| RATING | SYMBOL | SS5A | SS5B | SS5C | SS5D | SS5E | SS5G | SS5J | SS5K | SS5M | UNIT |
|--|--------------------|---------------|------|------|------|------|------|------|------|------|------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Current T _a = 55 °C | I _{F(AV)} | 5.0 | | | | | | | | | A |
| Maximum Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method) | I _{FSM} | 135 | | | | | | | | | A |
| Maximum Peak Forward Voltage at I _F = 5.0 A. | V _F | 0.95 | | | 1.7 | | | 4.0 | | | V |
| Maximum DC Reverse Current T _j = 25 °C at Rated DC Blocking Voltage T _j = 100 °C | I _R | 10 | | | | | | | | | μA |
| | I _{R(H)} | 500 | | | | | | | | | |
| Maximum Reverse Recovery Time (Note 1) | T _{rr} | 35 | | | | | | | | | ns |
| Typical Junction Capacitance (Note 2) | C _J | 50 | | | | | | | | | pf |
| Junction Temperature Range | T _J | - 65 to + 150 | | | | | | | | | °C |
| Storage Temperature Range | T _{STG} | - 65 to + 150 | | | | | | | | | °C |

Notes :

- (1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A.
- (2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

RATING AND CHARACTERISTIC CURVES (SS5A - SS5M)

FIG.1 - REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

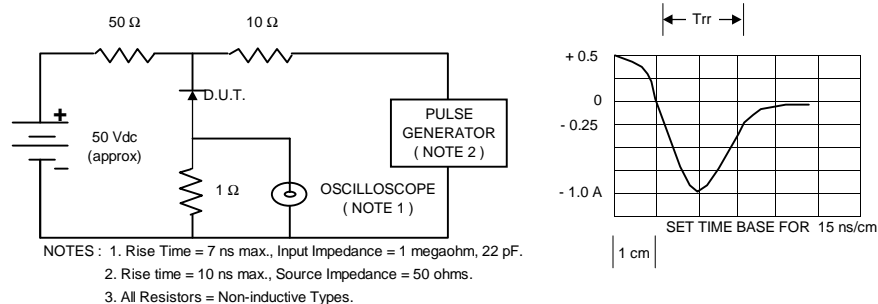


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

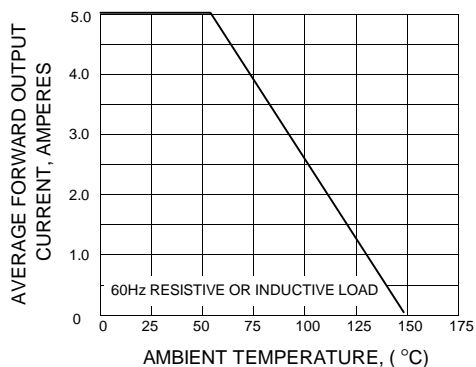


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

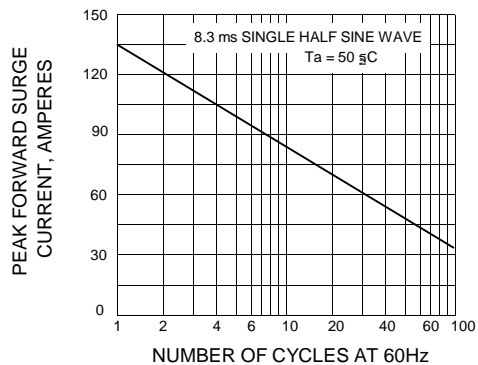


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

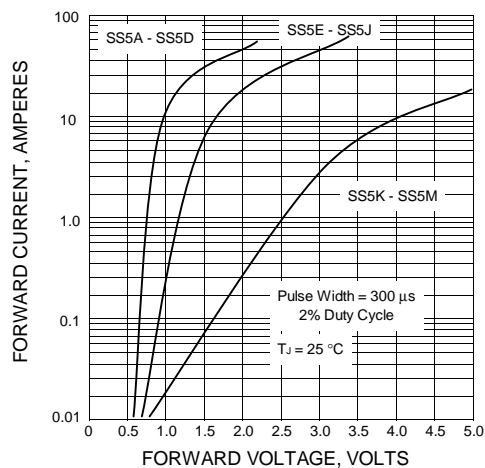


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

