

SR1P

FAST RECOVERY RECTIFIER DIODE

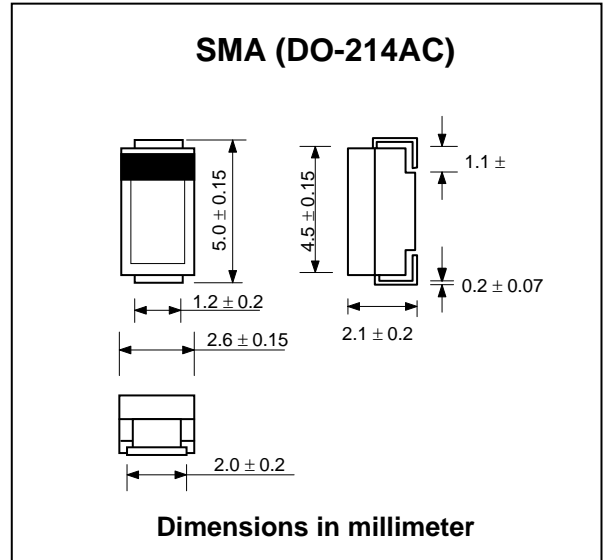
PRV : 1600 Volts
Io : 0.5 Ampere

FEATURES :

- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast switching for high efficiency
- * Pb / RoHS Free

MECHANICAL DATA :

- * Case : SMA Molded plastic
- * Epoxy : UL94V-O rate flame retardant
- * Lead : Lead Formed for Surface Mount
- * Polarity : Color band denotes cathode end
- * Mounting position : Any
- * Weight : 0.064 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| RATING | SYMBOL | VALUE | UNIT |
|--|--------------------|---------------|------|
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 1600 | V |
| Maximum RMS Voltage | V _{RMS} | 1120 | V |
| Maximum DC Blocking Voltage | V _{DC} | 1600 | V |
| Maximum Average Forward Current Ta = 75°C at 8.3 ms Single Half sine-wave | I _{F(AV)} | 0.5 | A |
| Maximum Non-Repetitive Peak Forward Surge Current | I _{FSM} | 20 | A |
| Maximum Peak Forward Voltage at I _F = 1.0 A | V _F | 1.5 | V |
| Maximum Reverse Current (V _R = V _{RRM}) | I _R | 10 | μA |
| Reverse Recovery Time (Note 1) | T _{rr} | 500 | ns |
| Junction Temperature Range | T _J | - 40 to + 150 | °C |
| Storage Temperature Range | T _{STG} | - 40 to + 150 | °C |

Note :

(1) Reverse Recovery Test Conditions : I_F = 0.5 A, I_R = 1.0 A, I_{rr} = 0.25 A.

RATING AND CHARACTERISTIC CURVES (SR1P)

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

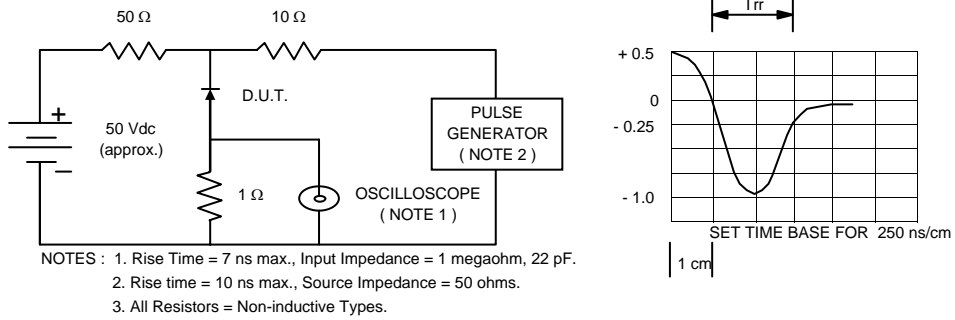


FIG.2 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

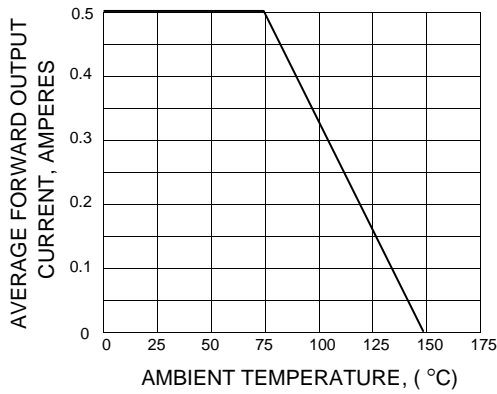


FIG.3 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

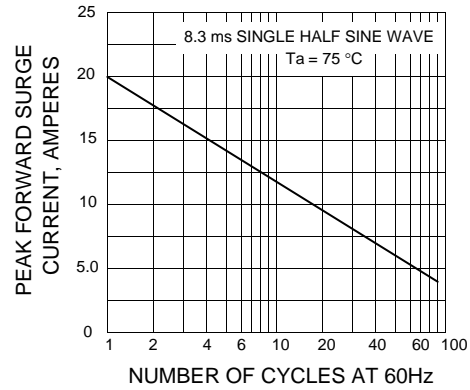


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

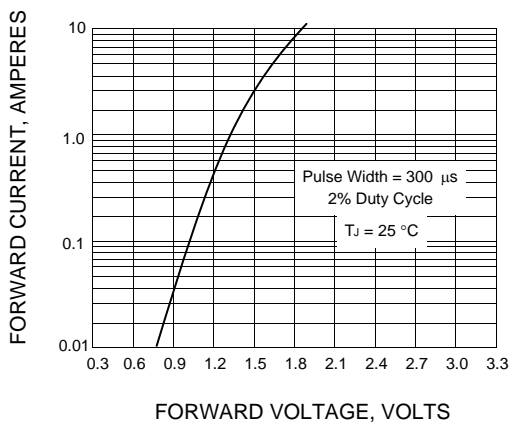


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

