

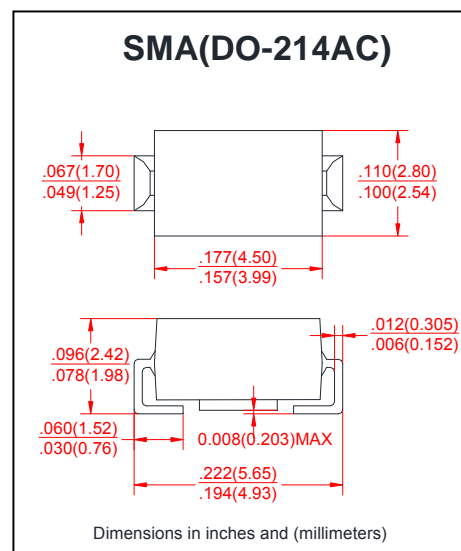


## FEATURES

- Fast switching for high efficiency
- Low forward voltage drop
- Low leakage current
- High forward surge capability

## MECHANICAL DATA

- Case: SMA mold plastic
- Epoxy: UL94V-0 rate flame retardant
- Polarity: Indicated by cathode band
- Lead: Solder plated, solderable per MIL-STD-750 method 2026
- Mounting position: Any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		SYMBOLS	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNITS
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>A</sub> =55°C		I <sub>(AV)</sub>	1.0							Amps
Peak Forward Surge Current 8.3mS single half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	30							Amps
Maximum Instantaneous Forward Voltage at 1.0A		V <sub>F</sub>	1.3							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	T <sub>A</sub> = 25°C	I <sub>R</sub>	5.0							μA
	T <sub>A</sub> = 100°C		100							
Maximum Reverse Recovery Time(NOTE1)		T <sub>RR</sub>	150				250	500		
Typical Junction Capacitance (NOTE 2)		C <sub>J</sub>	20							pF
Typical Thermal Resistance (NOTE 3)		R <sub>θJA</sub>	55							°C/W
Operating and Storage Temperature Range		T <sub>J</sub> , T <sub>STG</sub>	-55 to +150							°C

### Notes:

- 1.Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$ .
- 2.Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
- 3.Thermal Resistance from Junction to Ambient at  $8.0 \times 8.0\text{mm}^2$  copper pad areas.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

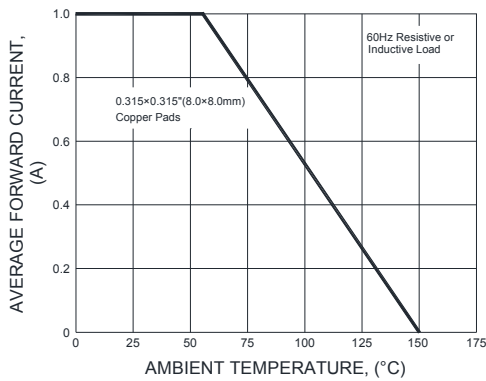


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

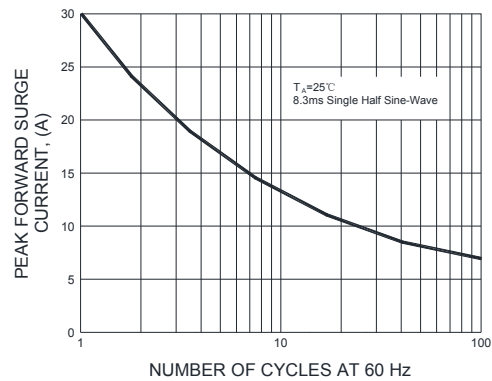


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

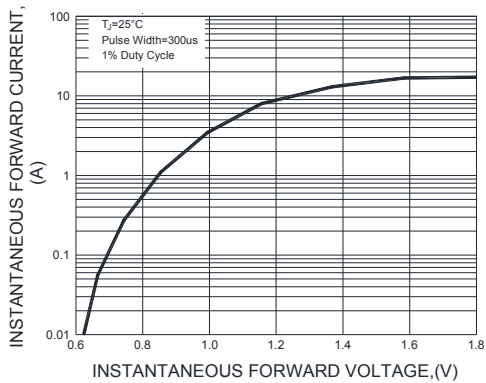


FIG.4-TYPICAL REVERSE CHARACTERISTICS

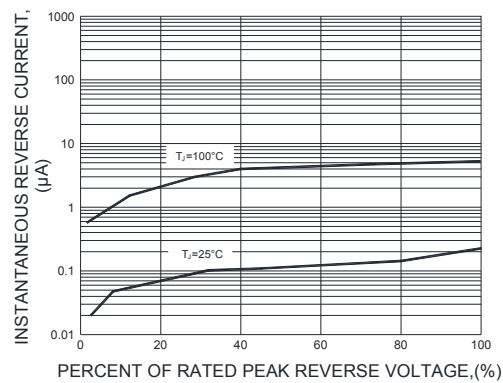


FIG.5-TYPICAL JUNCTION CAPACITANCE

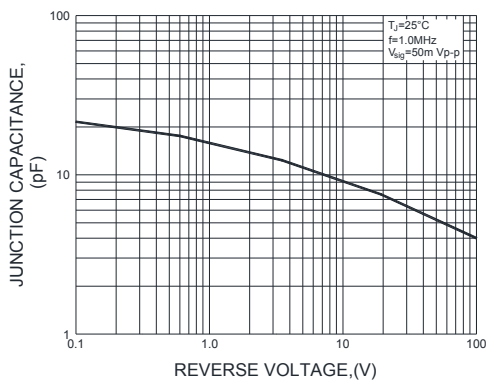


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT

