



FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Fast switching speed

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.063 grams

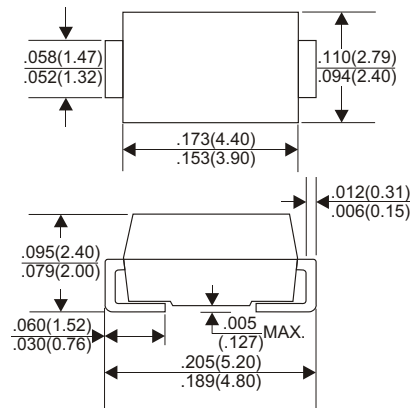
VOLTAGE RANGE

1000 Volts

CURRENT

1.0 Ampere

DO-214AC(SMA)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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 | ES1M | UNITS |
|--|------------|-------|
| Maximum Recurrent Peak Reverse Voltage | 1000 | V |
| Maximum RMS Voltage | 700 | V |
| Maximum DC Blocking Voltage | 1000 | V |
| Maximum Average Forward Rectified Current | | |
| .375"(9.5mm) Lead Length at Ta=55°C | 1.0 | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 30 | A |
| Maximum Instantaneous Forward Voltage at 1.0A | 1.7 | V |
| Maximum DC Reverse Current Ta=25°C | 5.0 | µA |
| at Rated DC Blocking Voltage Ta=100°C | 100 | µA |
| Maximum Reverse Recovery Time (Note 1) | 70 | nS |
| Typical Junction Capacitance (Note 2) | 15 | pF |
| Operating and Storage Temperature Range Tj, Tstg | -65 — +150 | °C |

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (ES1M)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

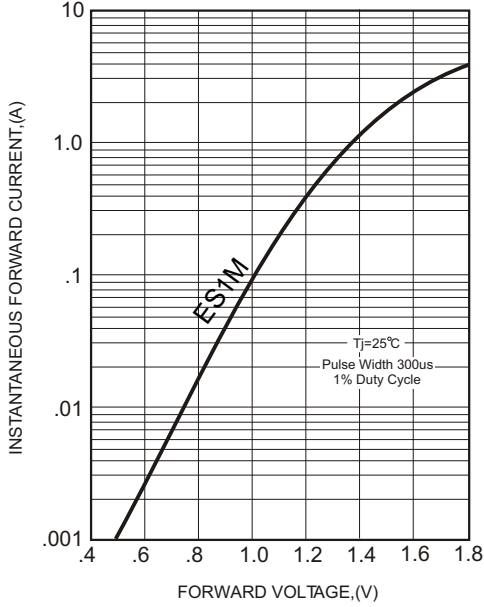


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

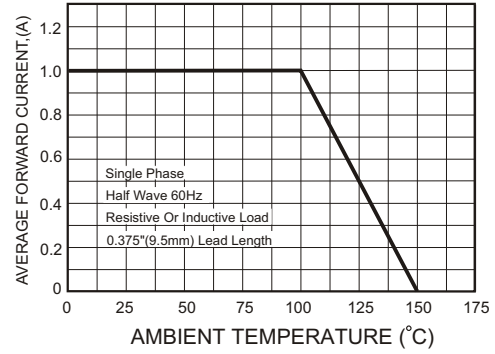


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

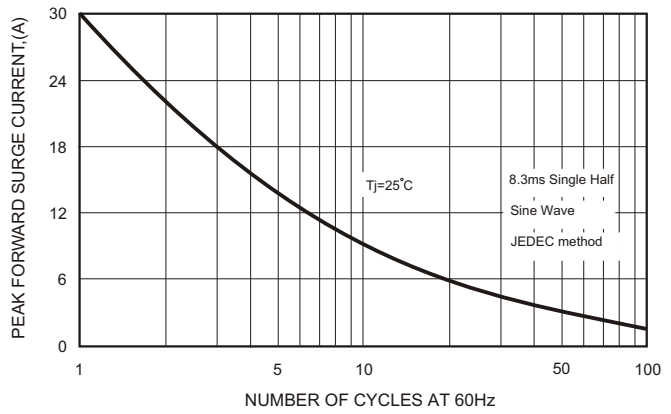
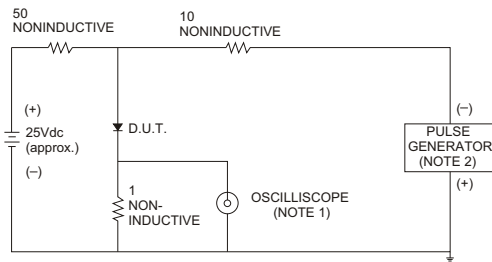


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

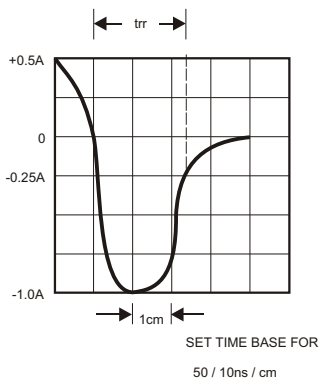


FIG.5-TYPICAL JUNCTION CAPACITANCE

