

SURFACE MOUNT RECTIFIER

REVERSE VOLTAGE: 13000-2000V
CURRENT: 1.0 A

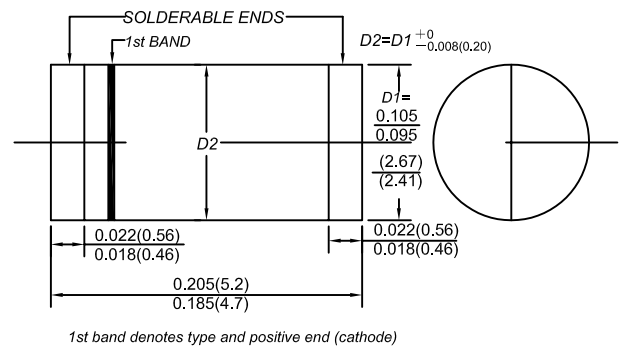
FEATURES

- Glass passivated device
- Ideal for surface mounted applications
- Low leakage current
- Metallurgically bonded construction

MECHANICAL DATA

- Case: JEDEC DO-213AB, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.0046 ounces, 0.116 gram
- Mounting position: Any

DO - 213AB



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%.

| | | SM 513 | SM 516 | SM 518 | SM 2000 | UNITS |
|--|-----------------|----------------|-----------|-----------|------------|---------|
| Maximum recurrent peak reverse voltage | V_{RRM} | 1300 | 1600 | 1800 | 2000 | V |
| Maximum RMS voltage | V_{RMS} | 910 | 1120 | 1260 | 1400 | V |
| Maximum DC blocking voltage | V_{DC} | 1300 | 1600 | 1800 | 2000 | V |
| Maximum average forward rectified current $T_A=75$ | $I_{(AV)}$ | 1.0 | | | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 40 | | | | A |
| Maximum forward voltage at 1.0A | V_F | 1.1 | | | | V |
| Maximum DC reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$ | I_R | 5.0 50 | | | | μA |
| Typical junction capacitance (NOTE 1) | C_j | 15 | | | | pF |
| Typical thermal resistance (NOTE 2) | $R_{j\theta L}$ | 20 | | | | /W |
| Typical thermal resistance (NOTE 3) | $R_{j\theta A}$ | 50 | | | | /W |
| Operating temperature range | T_j | - 55 --- + 175 | | | | |
| Storage temperature range | T_{STG} | - 55 --- + 175 | | | | |

NOTES: 1. Measured at 1.0MHz and applied average voltage of 4.0V DC.

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- Thermal resistance junction to lead, 6.0 mm² copper pads to each terminal.
- Thermal resistance junction to ambient, 6.0 mm² copper pads to each terminal.

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

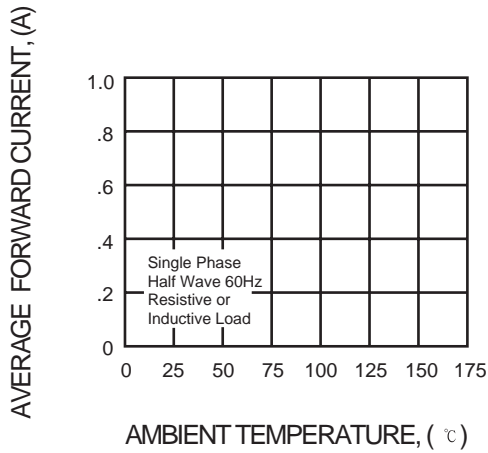


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

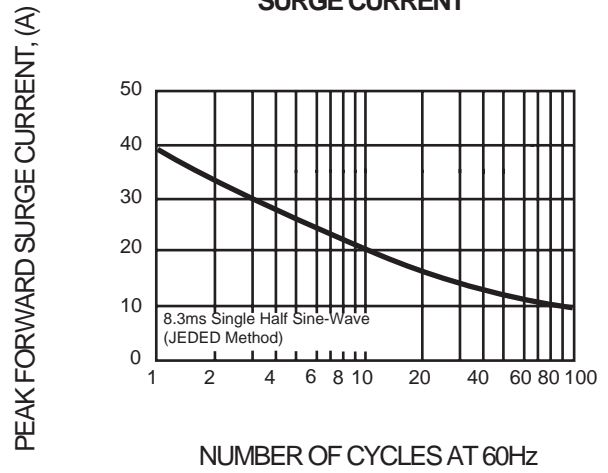


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

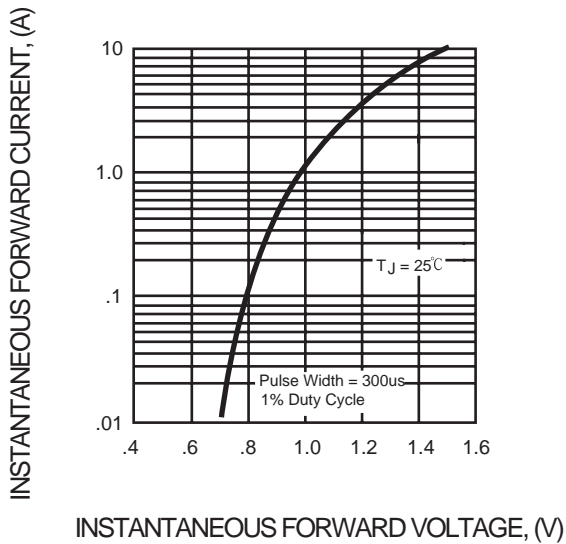


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

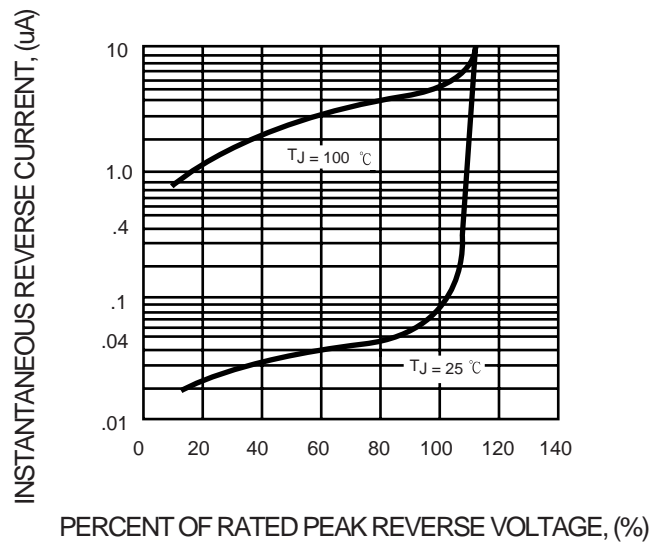


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

