



VOLTAGE RANGE: 400 --- 600 V
CURRENT: 1.0 A

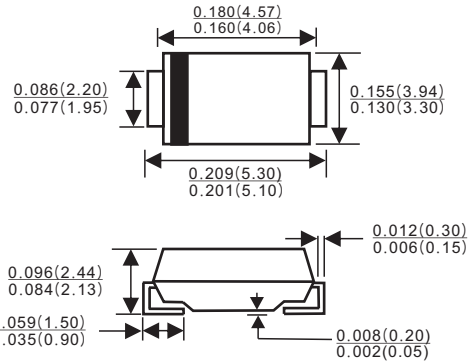
SMB/DO-214AA

Features

- ◇ Low cost
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Alcohol, Isopropanol and similar solvents
- ◇ The plastic material carries U/L recognition 94V-0

Mechanical Data

- ◇ Case: JEDEC DO-214AA, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.003 ounces, 0.093 grams
- ◇ Mounting position: Any



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

| | | MURS140B | MURS160B | UNITS |
|---|-----------------|-----------------|----------|--------------------|
| Device marking code | | MG | MJ | |
| Maximum recurrent peak reverse voltage | V_{RRM} | 400 | 600 | V |
| Maximum RMS voltage | V_{RMS} | 280 | 420 | V |
| Maximum DC blocking voltage | V_{DC} | 400 | 600 | V |
| Maximum average forward rectified current @ $T_L=110^\circ\text{C}$ | $I_{F(AV)}$ | 1.0 | | A |
| Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$ | I_{FSM} | 35 | | A |
| Typical reverse recovery time (Note1) | t_{rr} | 50 | | ns |
| Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$ | I_R | 5.0 | 150 | μA |
| Maximum instantaneous forward voltage at 1.0 A | V_F | 1.25 | | V |
| Typical thermal resistance (Note2) | $R_{\theta JL}$ | 13 | | $^\circ\text{C/W}$ |
| Operating junction temperature range | T_J | - 55 ---- + 150 | | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | - 55 ---- + 150 | | $^\circ\text{C}$ |

NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.

2. Junction to ambient.



Ratings AND Characteristic Curves

FIG.1 – TYPICAL FORWARD CHARACTERISTIC

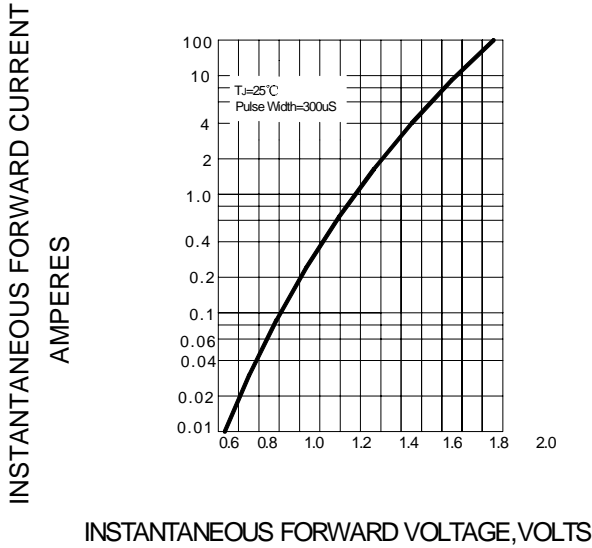


FIG.2 -- TYPICAL REVERSE LEAKAGE CHARACTERISTICS

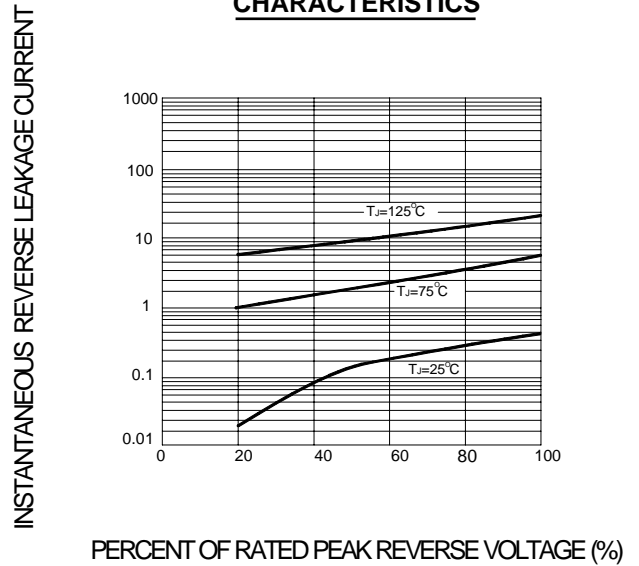


FIG.3 – PEAK FORWARD SURGE CURRENT

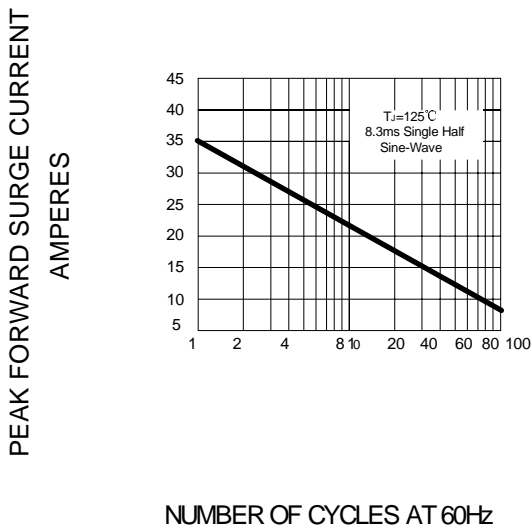
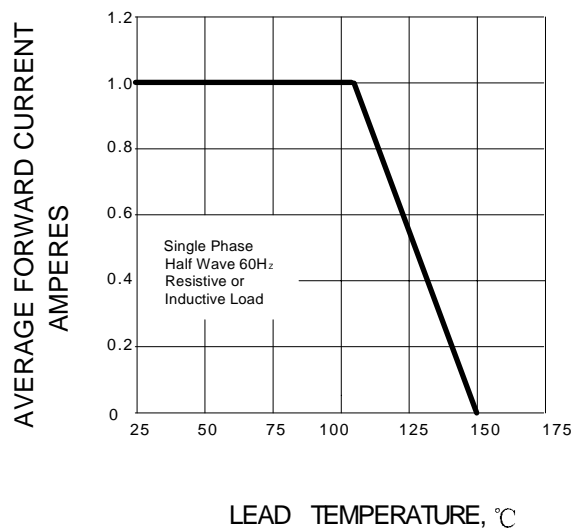


FIG.4 – FORWARD DERATING CURVE



| PACKAGE | SPQ/PCS | CARTON SPQ/PCS | CARTON SIZE/CM | CARTON GW/KG | CARTON NW/KG |
|---------|-----------|----------------|----------------|--------------|--------------|
| SMB | 3000/REEL | 48000 | 36X35.8X36.5 | 12.00 | 11.00 |