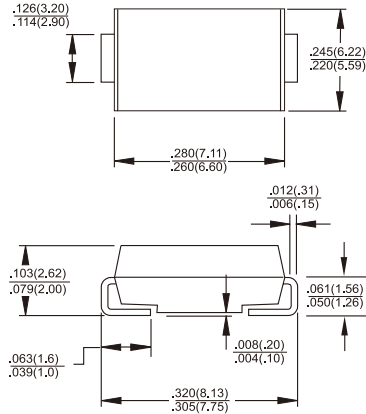




**SMC/DO-214AB**



Dimensions in inches and (millimeters)

Marking Diagram



- MURXXXX = Specific Device Code
- G = Green Compound
- Y = Year
- M = Work Month

**Features**

- ✦ For surface mounted application
- ✦ Glass passivated junction chip
- ✦ Low profile package
- ✦ Build-in strain relief
- ✦ Qualified as per AEC-Q101
- ✦ Ideal for automated placement
- ✦ Ultrafast recovery time for high efficiency
- ✦ Low forward voltage, low power loss
- ✦ High temperature soldering guaranteed: 260°C/10 seconds on terminals
- ✦ Plastic material used carriers Underwriters Laboratory Classification 94V-0
- ✦ Epitaxial construction
- ✦ Green compound with suffix "G" on packing code & prefix "G" on datecode

**Mechanical Data**

- ✦ Case: SMC/DO-214AB
- ✦ Packaging: 16mm tape per EIA Std RS-481
- ✦ Terminals: Pure tin plated, lead free, solderable per MIL-STD-750, Method 2026
- ✦ Polarity: Indicated by cathode band
- ✦ Weight: 0.21 grams

**Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| Type Number   | Symbol          | MUR 305S       | MUR 310S | MUR 315S | MUR 320S     | MUR 340S | MUR 360S | Units              |
|---|-----------------|----------------|----------|----------|--------------|----------|----------|--------------------|
| Maximum Repetitive Peak Reverse Voltage   | $V_{RRM}$       | 50             | 100      | 150      | 200          | 400      | 600      | V                  |
| Maximum RMS Voltage   | $V_{RMS}$       | 35             | 70       | 105      | 140          | 280      | 420      | V                  |
| Maximum DC blocking voltage   | $V_{DC}$        | 50             | 100      | 150      | 200          | 400      | 600      | V                  |
| Maximum Average Forward Rectified Current   | $I_{F(AV)}$     | 3              |          |          |              |          |          | A                  |
| Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load                           | $I_{FSM}$       | 75             |          |          |              |          |          | A                  |
| Maximum Instantaneous Forward Voltage<br>@ 3.0A / $T_A=25^\circ C$<br>@ 3.0A / $T_A=150^\circ C$              | $V_F$           | 0.875<br>0.710 |          |          | 1.25<br>1.05 |          |          | V                  |
| Maximum DC Reverse Current at Rated DC Blocking Voltage<br>@ $T_A=25^\circ C$<br>(Note 1) @ $T_A=150^\circ C$ | $I_R$           | 5<br>150       |          |          | 10<br>250    |          |          | $\mu A$<br>$\mu A$ |
| Max Reverse Recovery Time(Note 2)   | $T_{rr}$        | 25             |          |          | 50           |          |          | nS                 |
| Max Reverse Recovery Time(Note 3)   | $T_{rr}$        | 35             |          |          | 75           |          |          | nS                 |
| Typical Thermal Resistance (Note 4)   | $R_{\theta JL}$ | 11             |          |          |              |          |          | $^\circ C/W$       |
| Operating Temperature Range   | $T_J$           | -65 to + 175   |          |          |              |          |          | $^\circ C$         |
| Storage Temperature Range   | $T_{STG}$       | -65 to + 175   |          |          |              |          |          | $^\circ C$         |

- www.DataSheet4U.com
- Note: 1. Pulse Test with PW=300 usec, 1% Duty Cycle  
 2. Reverse Recovery Time Test Conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{RR}=0.25A$   
 3. Reverse Recovery Test Conditions:  $I_F=1A$ ,  $dI/dt=50A/us$ ,  $V_R=30V$ ,  $I_{RR}=10\%I_{RM}$   
 4. Mount on Cu-Pad Size 10.0mm x 10.0mm x 1.6mm on P.C.B

Version: C10

## RATINGS AND CHARACTERISTIC CURVES (MUR305S THRU MUR360S)

Fig. 1 Maximum Forward Current Derating Curve

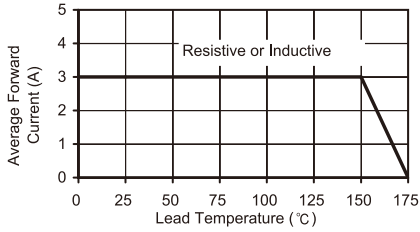


Fig. 2 Maximum Forward Surge Current

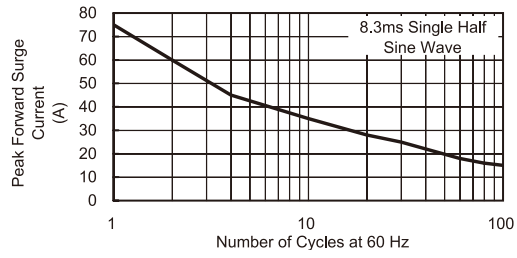


Fig. 3 Typical Forward Characteristics (MUR305S~320S)

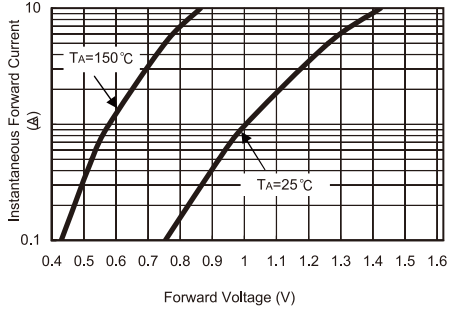


Fig. 4 Typical Forward Characteristics (MUR340S~360S)

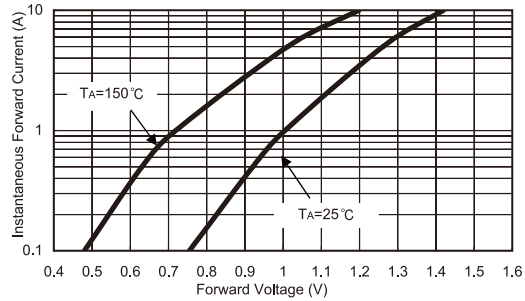


Fig. 5 Typical Reverse Characteristics

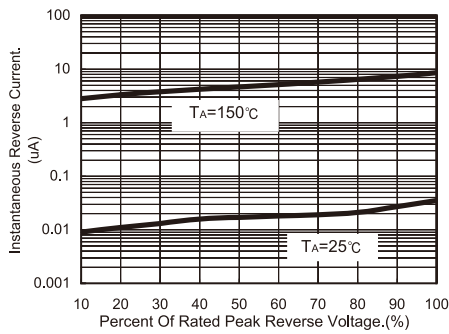


Fig. 6 Typical Reverse Characteristics (MUR340S~360S)

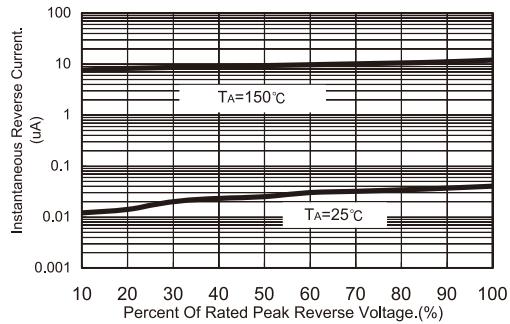


Fig. 7 Typical Junction Capacitance

