

## MUR2JGR

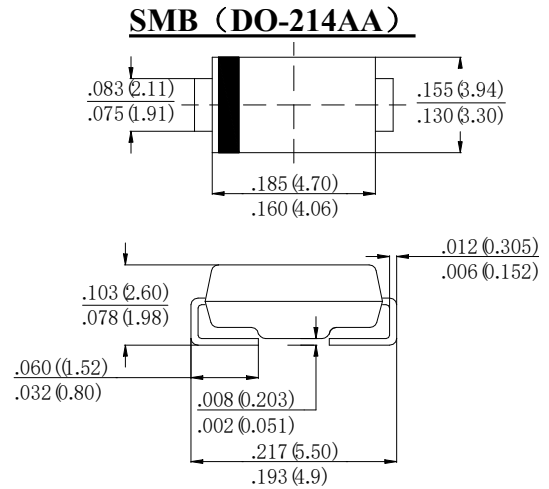
### 2.0AMPS. SURFACE MOUNT ULTRA FAST RECTIFIER

#### FEATURE

- . Glass Passivated clip
- . Low power loss, high efficiency
- . High surge capability
- . Super fast recovery time for high efficiency.
- . For surface mounted application.
- . Easy pick and place
- . High temperature soldering guaranteed:  
260°C/10 seconds at terminals.

#### MECHANICAL DATA

- . Terminal: Solder plated
- . Case: Molded with UL-94 Class V-0 recognized  
Flame Retardant Epoxy
- . Polarity: color band denotes cathode



Dimensions in inches and (millimeters)

### 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%

| Type Number   | SYM<br>BOL               | MUR2JGR      | units              |
|---|--------------------------|--------------|--------------------|
| Maximum Recurrent Peak Reverse Voltage  | $V_{RRM}$                | 600          | V                  |
| Maximum RMS Voltage   | $V_{RMS}$                | 420          | V                  |
| Maximum DC blocking Voltage   | $V_{DC}$                 | 600          | V                  |
| Maximum Average Forward Rectified Current   | $I_{F(AV)}$              | 2.0          | A                  |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)              | $I_{FSM}$                | 60           | A                  |
| Maximum Forward Voltage at 2.0A DC  | $V_F$                    | 1.3          | V                  |
| Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$<br>at rated DC blocking voltage @ $T_J=125^\circ\text{C}$ | $I_R$                    | 5.0<br>200.0 | $\mu\text{A}$      |
| Maximum Reverse Recovery Time (Note1)   | $t_{rr}$                 | 50           | nS                 |
| Typical Junction Capacitance (Note2)  | $C_J$                    | 30           | pF                 |
| Typical Thermal Resistance (Note 3)   | $R_{(JA)}$<br>$R_{(JC)}$ | 50<br>20     | $^\circ\text{C/W}$ |
| Storage Temperature   | $T_{STG}$                | -55 to +150  | $^\circ\text{C}$   |
| Operation Junction Temperature  | $T_J$                    | -55 to +150  | $^\circ\text{C}$   |

#### Note:

1. Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
3. Measured on P.C.Board with 10.0×10.0mm Cu Copper Pad Areas.

**RATING AND CHARACTERISTIC CURVES**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

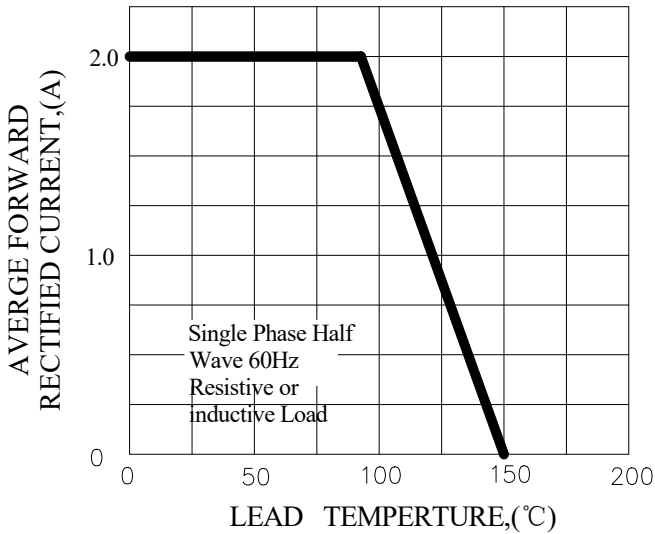


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

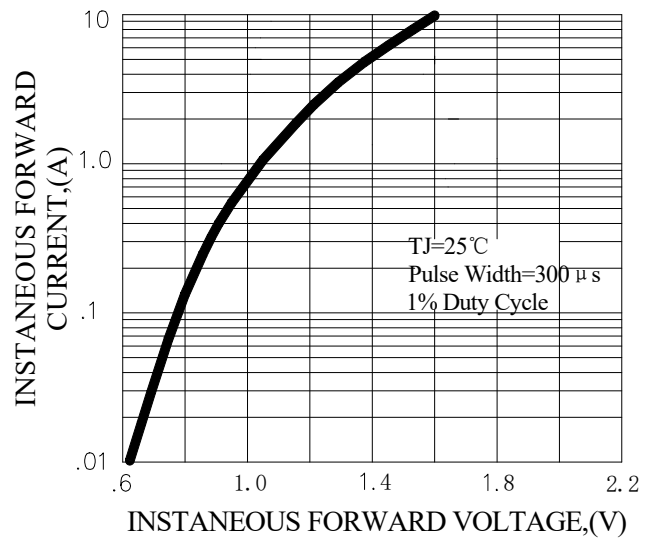


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

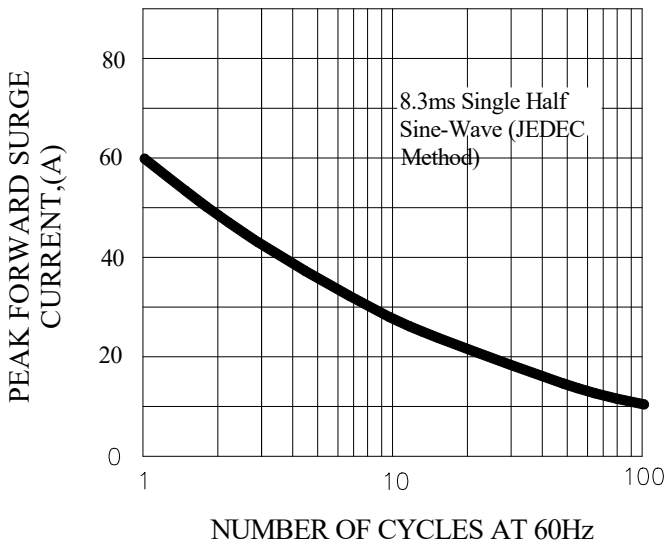


FIG.4-TYPICAL REVERSE CHARACTERISTICS

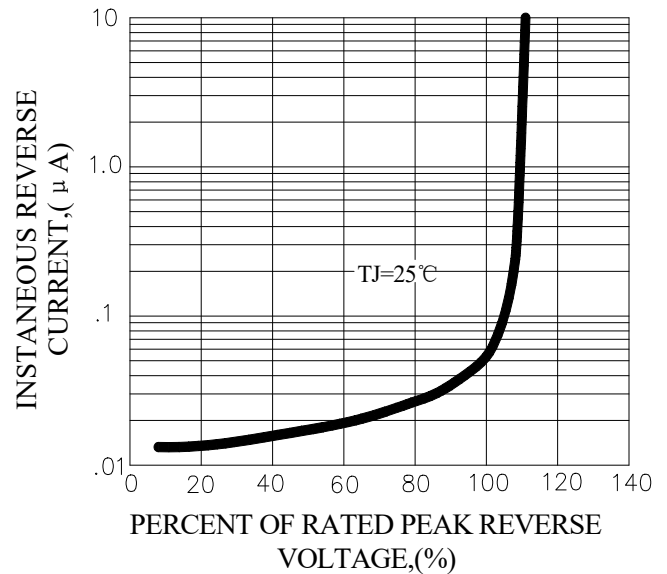
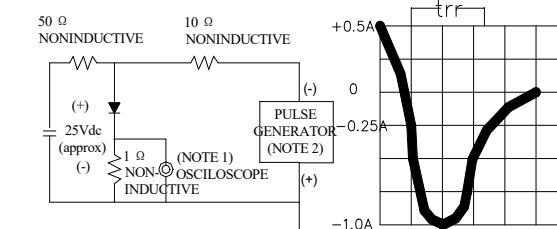


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

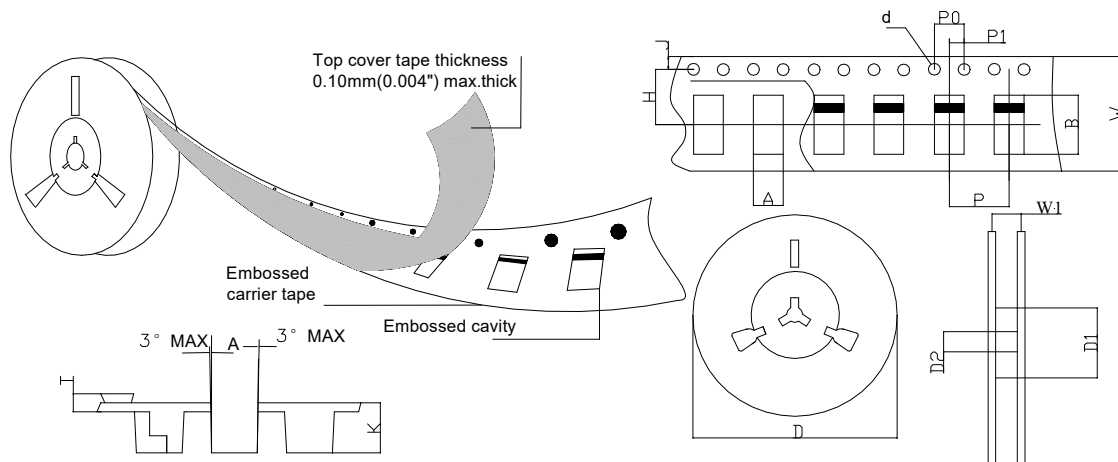
## Marking and packaging illustration

### 1、Marking



| SYMBOL   | Explanation                       |
|----------|-----------------------------------|
| <b>A</b> | <b>Color Band Denotes Cathode</b> |
| <b>B</b> | <b>Product Name</b>               |
| <b>C</b> | <b>Date Code</b>                  |

### 2、Packaging



| SPECIFICATIONS<br>mm(inch) |            | PACKAGE           | SPECIFICATIONS<br>mm(inch) |            | PACKAGE           |
|----------------------------|------------|-------------------|----------------------------|------------|-------------------|
| ITEM                       | SYM<br>BOL | SMB<br>(DO-214AA) | ITEM                       | SYM<br>BOL | SMB<br>(DO-214AA) |
| Carrier width              | A          | 3.81(0.150)Max    | Carrier depth              | K          | 2.45(0.965)Typ    |
| Carrier length             | B          | 5.41(0.213)Max    | Punch hole pitch           | P          | 4.00(0.157)Typ    |
| Sprocket hole              | d          | ø1.55(0.061)Typ   | Sprocket hole pitch        | P0         | 4.00(0.157)Typ    |
| Reel outer diameter        | D          | 330.0(13.0)Typ    | Embossment center          | P1         | 2.00(0.079)Typ    |
| Reel inner diameter        | D1         | 50.0(1.969)Min    | Overall tape thickness     | T          | 0.30(0.012)Typ    |
| Feed hole diameter         | D2         | 13.0(0.512)Typ    | Tape width                 | W          | 12.0(0.472)Typ    |
| Sprocket hole position     | J          | 1.75(0.069)Typ    | Reel width                 | W1         | 12.4(0.488)Min    |
| Punch hole position        | H          | 5.55(0.219)Typ    |                            |            |                   |