

MUR2JGR

2.0AMPS .GLASS PASSIVATED ULTRA FAST RECTIFIERS

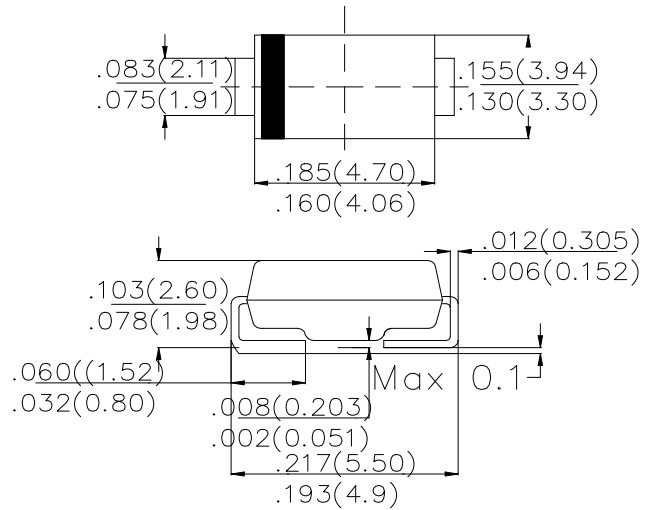
FEATURE

- . Glass passivated chip
- . High current capability
- . Low forward voltage drop
- . High surge capability
- . Superfast recovery time for high efficiency
- . High temperature soldering guaranteed
260°C/10 seconds at terminals.
- . For surface mounted application.
- . Easy pick and place.

MECHANICAL DATA

- . Case: Molded plastic
- . Epoxy: UL94V-0 rate flame retardant
- . Lead: MIL-STD- 202E, Method 208 guaranteed
- . Polarity:Color band denotes cathode end
- . Mounting position: Any

SMB (DO-214AA)



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

For capacitive load, derate current by 20%

MAXIMUM RATINGS ($T_C=25^\circ\text{C}$ unless otherwise noted)

| Parameter | Symbol | MUR2JGR | | | Units |
|--|----------------|--------------|-----|-------|---------------------------|
| | | Min | Typ | Max | |
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 600 | | | V |
| Maximum RMS Voltage | V_{RMS} | 420 | | | V |
| Maximum DC blocking Voltage | V_{DC} | 600 | | | V |
| Average Forward Rectified Current | $I_{F(AV)}$ | 1.0 | | | A |
| Non-repetitive forward surge current,8.3mS half sine-wave | I_{FSM} | 35 | | | A |
| Maximum Reverse Recovery Time (Note 1) | t_{rr} | | | 50 | nS |
| Typical Junction Capacitance (Note 2) | C_J | | 15 | | pF |
| Instantaneous Forward voltage at 1.0A @ $T_J=25^\circ\text{C}$ | V_F | | | 1.25 | V |
| reverse current @ $T_J=25^\circ\text{C}$ | I_R | | | 5.0 | uA |
| at rated DC blocking voltage @ $T_J=125^\circ\text{C}$ | | | | 125.0 | |
| Typical Thermal Resistance (Note 3) | R_{thJA} | | | 13 | $^\circ\text{C}/\text{W}$ |
| Operation Junction Temperature and Storage Temperature | T_J, T_{STG} | -55 to + 150 | | | $^\circ\text{C}$ |

Note:

1. Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$

2. $T_J=25^\circ\text{C}$, $V_R = 4\text{V}_{DC}@1\text{Mhz}$

3. Measured on P.C.Board with $5.0\text{mm}*5.0\text{mm}*1.6\text{mm}$ Copper Pad Areas

RATING AND CHARACTERISTIC CURVES (MUR2JGR)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

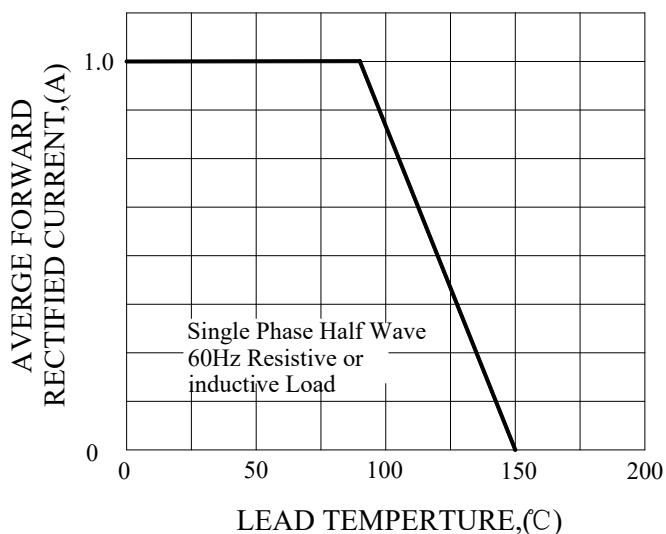


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

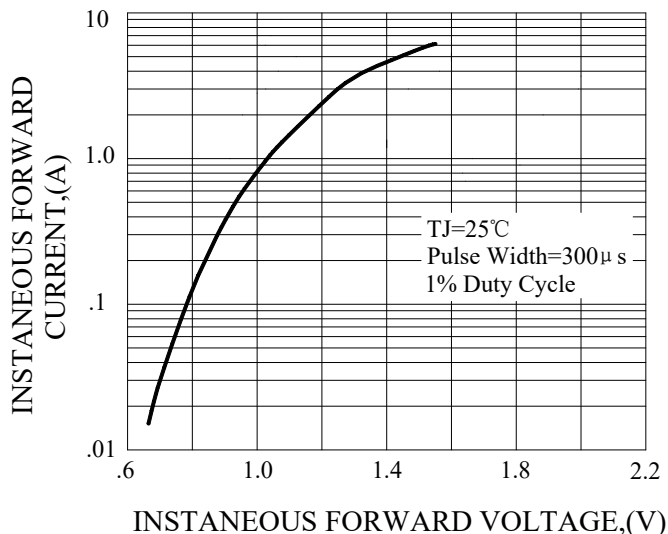


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

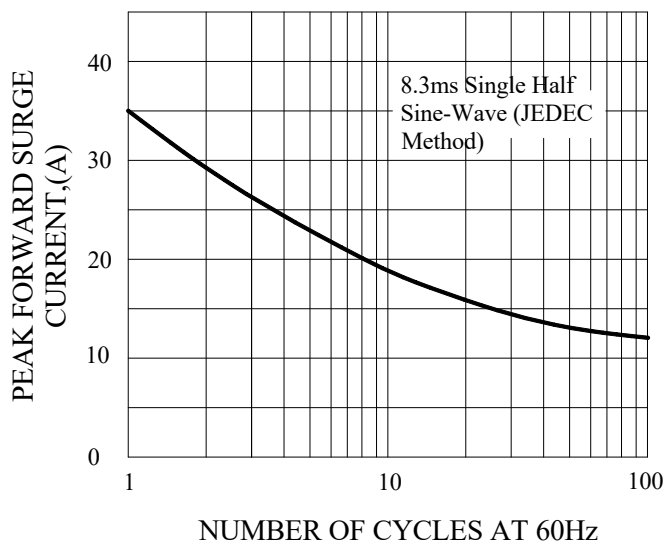


FIG.4-TYPICAL REVERSE CHARACTERISTICS

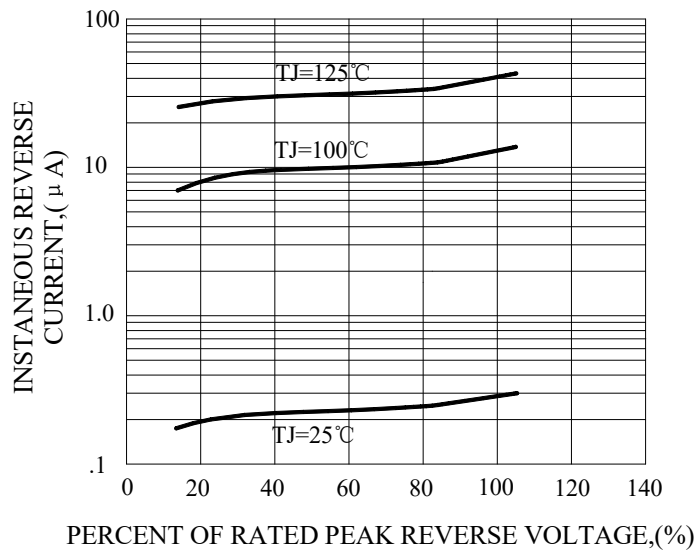
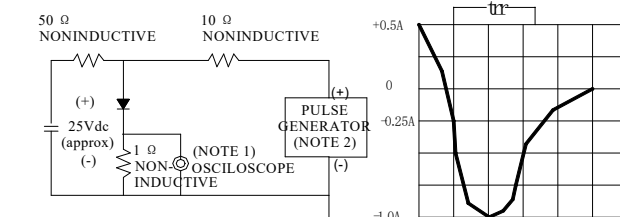


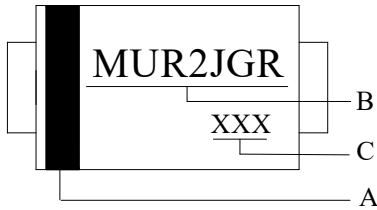
FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

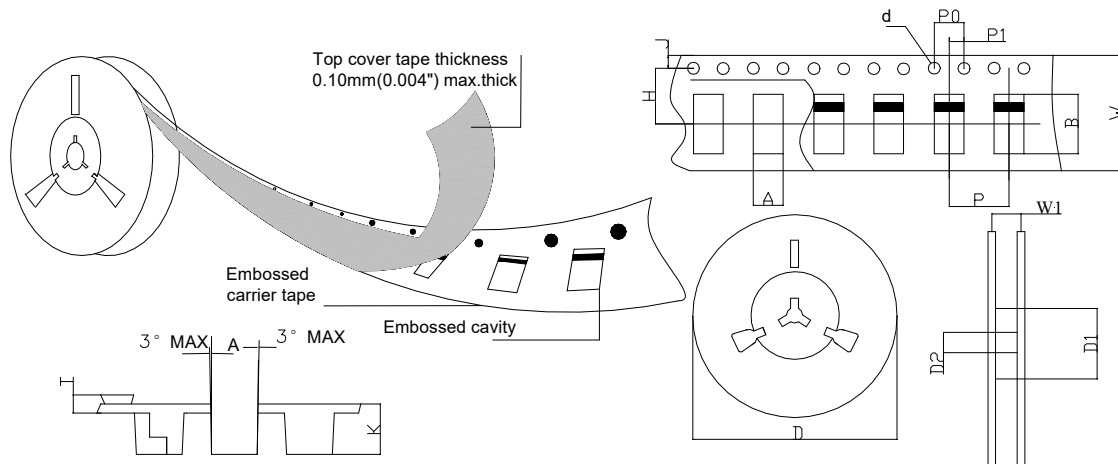
Marking and packaging illustration

1、Marking



| SYMBOL | Explanation |
|----------|-----------------------------------|
| A | Color Band Denotes Cathode |
| B | Product Name |
| C | Date Code |

2、Packaging



| SPECIFICATIONS mm(inch) | | PACKAGE | SPECIFICATIONS mm(inch) | | PACKAGE |
|----------------------------|------------|-------------------|----------------------------|------------|-------------------|
| ITEM | SYM BOL | SMB (DO-214AA) | ITEM | SYM BOL | SMB (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 | 8.00(0.315)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 | | | |