

ER2A~ER2J

SURFACE MOUNT RECTIFIER

VOLTAGE 50 to 600 Volt **CURRENT** 2 Ampere

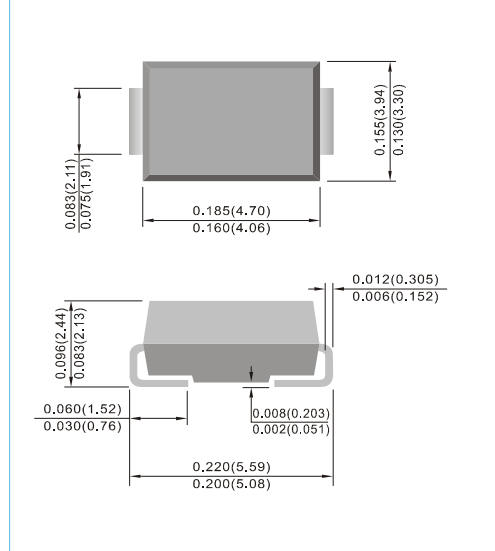
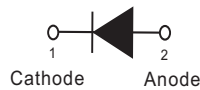
SMB / DO-214AA Unit : inch(mm)

FEATURES

- For surface mounted applications in order to optimize board space
- High temperature metallurgically bonded-no compression contacts as found in other diode-constructed rectifiers
- Glass passivated junction
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: JEDEC DO-214AA molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0032 ounces, 0.092 grams



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 current by 20%.

| PARAMETER | SYMBOL | ER2A | ER2B | ER2C | ER2D | ER2E | ER2G | ER2J | UNITS |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|------|------|------|------|------|------|--------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 105 | 140 | 210 | 280 | 420 | V |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| Maximum Average Forward Current T _L =110°C | I _{F(AV)} | 2 | | | | | | | A |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I _{FSM} | 50 | | | | | | | A |
| Maximum Forward Voltage at 2A | V _F | 0.95 | | | | 1.25 | | 1.7 | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage T _J =25°C T _J =100°C | I _R | 1 150 | | | | | | | μA |
| Maximum Reverse Recovery Time (Note 1) | t _{rr} | 35 | | | | | | | ns |
| Typical Junction Capacitance (Note 2) | C _J | 25 | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | R _{θJL} | 20 | | | | | | | °C / W |
| Typical Thermal Resistance (Note 3) | R _{θJC} | 15 | | | | | | | °C / W |
| Operating Junction and Storage Temperature Range | T _J , T _{STG} | -55 to +150 | | | | | | | °C |

NOTES: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = -1\text{A}$, $I_{rr} = -0.25\text{A}$
2. Measured at 1 MHz and applied $V_r = 4$ volts.
3. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.

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RATING AND CHARACTERISTIC CURVES

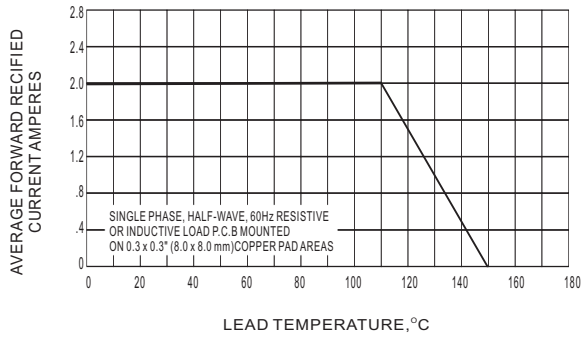


FIG.1 MAXIMUM AVERAGE FORWARD CURRENT RATING

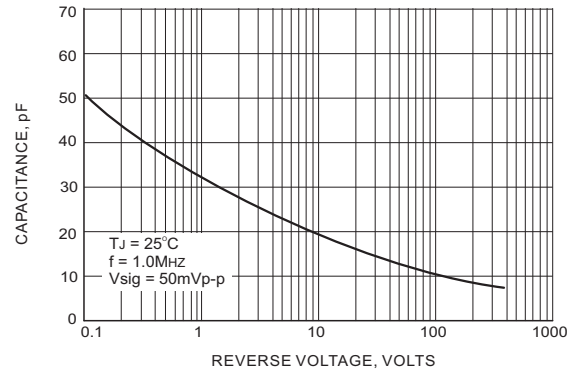


FIG.2 TYPICAL JUNCTION CAPACITANCE

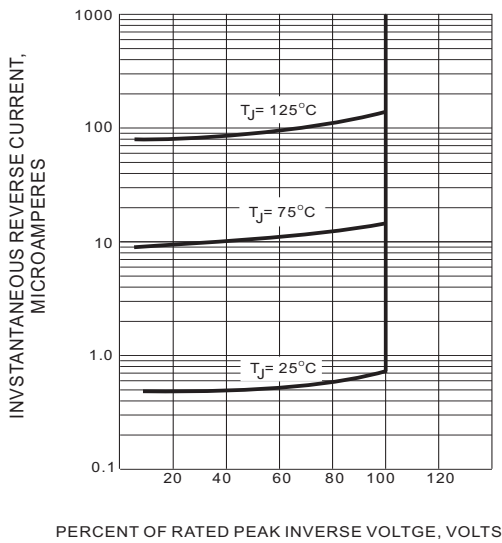


FIG.3 TYPICAL REVERSE CHARACTERISTICS

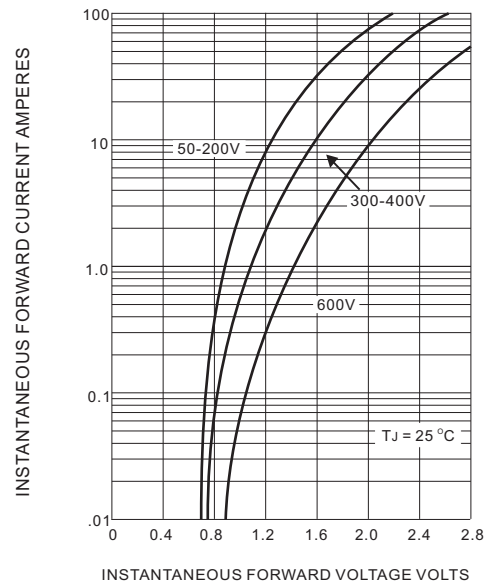


FIG.4 TYPICAL FORWARD CHARACTERISTICS

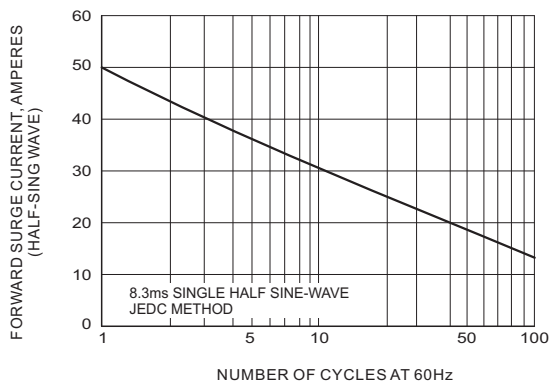
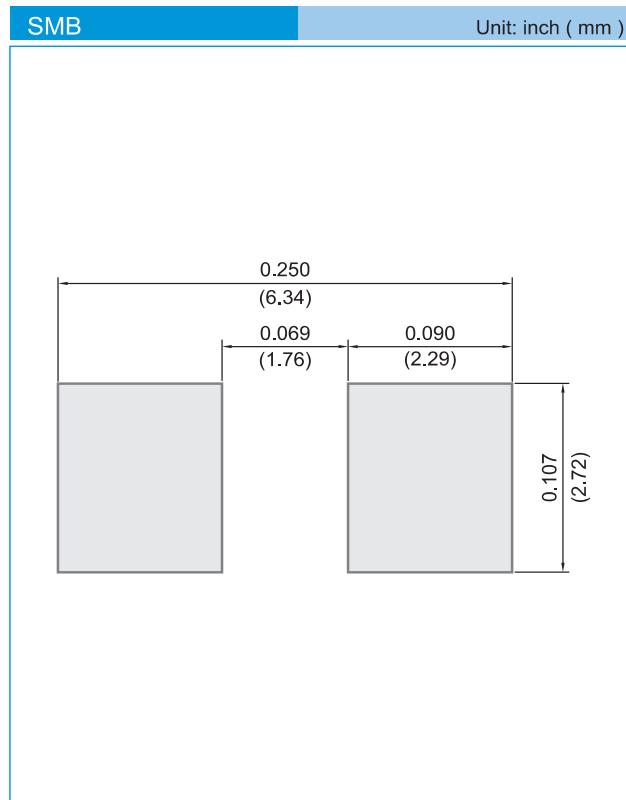


FIG.5 MAXIMUM NON-REPEITIVE SURGE CURRENT



ER2A~ER2J

MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
 - T/R - 3K per 13" plastic Reel
 - T/R - 0.8K per 7" plastic Reel

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Part No_packing code_Version

ER2A_R1_00001

ER2A_R2_00001

For example :

RB500V-40_R2_00001

Part No.

Serial number

Version code means HF

Packing size code means 13"

Packing type means T/R

| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|--------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



ER2A~ER2J

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