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*SURFACE MOUNT SUPER FAST RECTIFIERS*

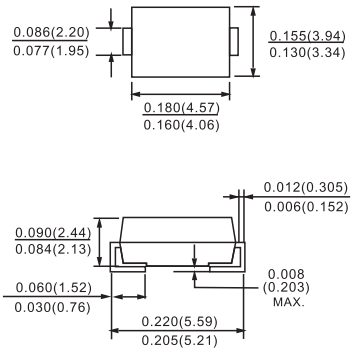
# ER2A THRU ER2J

50V-600V 2.0A

## FEATURES

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Superfast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- High temperature soldering: 260 ¢J/10 seconds at terminals

DO-214AA(SMB)




Dimensions in inches and (millimeters)

## MECHANICAL DATA

Case: JEDEC DO-214AA molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band

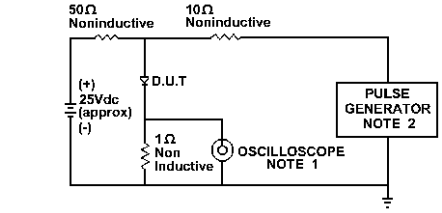
Standard packaging: 12mm tape (EIA-481)

Weight: 0.003 ounce, 0.093 gram

## Maximum Ratings and Electrical Characteristics @$T_A$=25°C unless otherwise specified

| Characteristic | Symbol | ER2A | ER2B | ER2C | ER2D | ER2E | ER2G | ER2J | Unit |
|---|---|---|---|---|---|---|---|---|---|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 50 | 100 | 150 | 200 | 300 | 400 | 600 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 35 | 70 | 105 | 140 | 210 | 280 | 420 | V |
| Average Rectified Output Current @$T_L$ = 110°C | $I_O$ | 2.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 50 | | | | | | | A |
| Forward Voltage @$I_F$ = 2.0A | $V_{FM}$ | 0.95 | | | | 1.25 | | 1.7 | V |
| Peak Reverse Current @$T_A$ = 25°C<br>At Rated DC Blocking Voltage @$T_A$ = 100°C | $I_{RM}$ | 5.0<br>500 | | | | | | | μA |
| Reverse Recovery Time (Note 1) | $t_{rr}$ | 35 | | | | | | | nS |
| Typical Junction Capacitance (Note 2) | $C_j$ | 25 | | | | | | | pF |
| Typical Thermal Resistance (Note 3) | $R_{\theta JL}$ | 20 | | | | | | | K/W |
| Operating and Storage Temperature Range | $T_j$, $T_{STG}$ | -65 to +150 | | | | | | | °C |

Note: 1. Measured with $I_F$ = 0.5A, $I_R$ = 1.0A, $I_{rr}$ = 0.25A,
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 V DC.
3. Mounted on P.C. Board with 8.0mm$^2$ land area.




NOTE:1.Rise Time = 7ns max.
Input Impedance = 1 megohm. 22pF
2.Rise Time = 10ns max.
Source Impedance = 50 Ohms

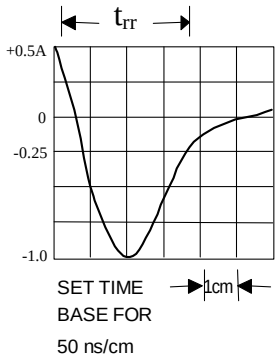



Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

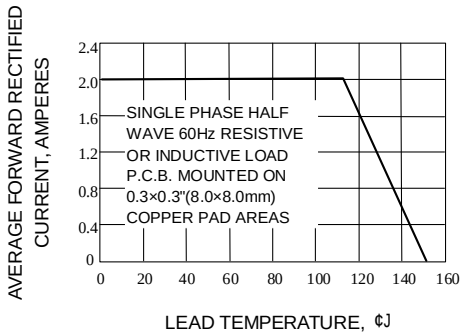



Fig. 2-MAXIMUM AVERAGE FORWARD CURRENT RATING

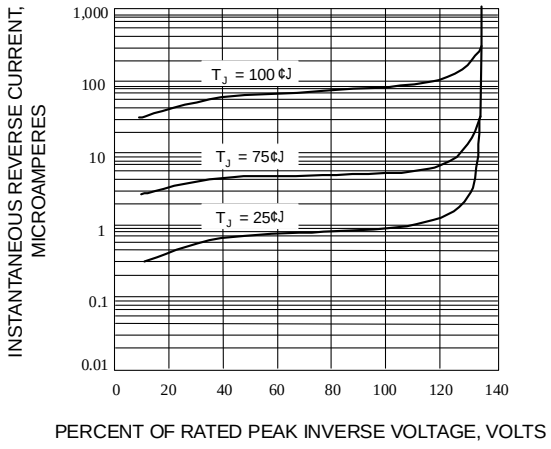



Fig. 3-TYPICAL REVERSE CHARACTERISTICS

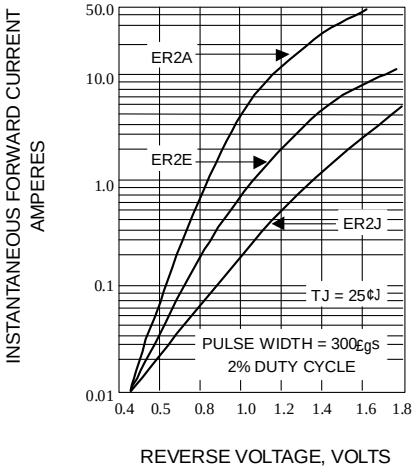



Fig. 4-TYPICAL FORWARD CHARACTERISTICS

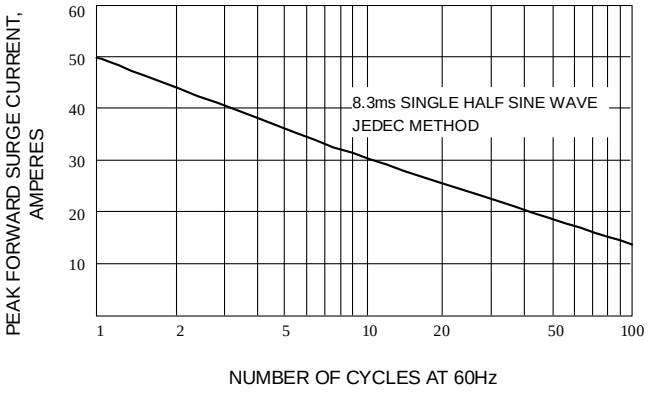



Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

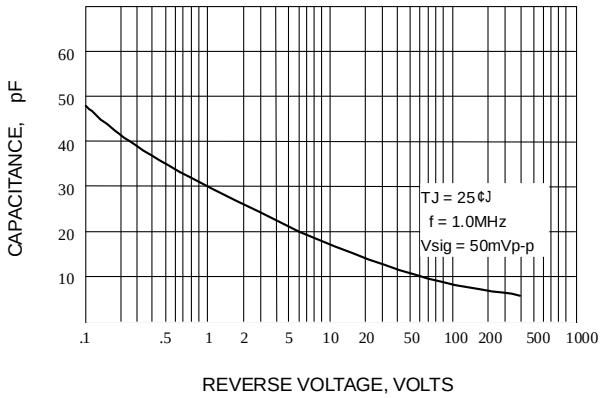



Fig. 6-TYPICAL JUNCTION CAPACITANCE