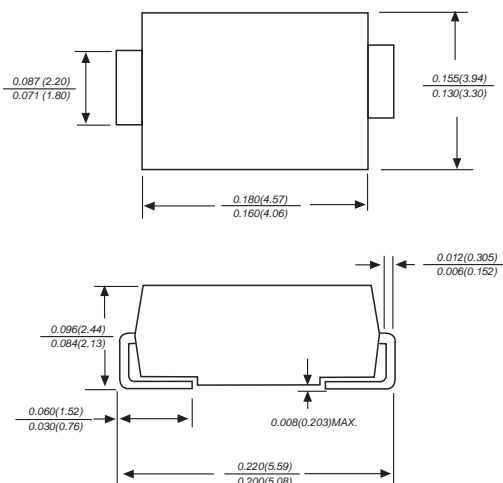


# ER2A THRU ER2J

## SURFACE MOUNT SUPER FAST RECTIFIER

Reverse Voltage - 50 to 600 Volts Forward Current - 2.0 Amperes

### DO-214AA



Dimensions in inches and (millimeters)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Super fast switching for high efficiency
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 260°C/10 seconds at terminals
- ◆ Glass passivated chip junction

### MECHANICAL DATA

**Case:** JEDEC DO-214AA molded plastic body over passivated chip

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

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.003 ounce, 0.093 grams

### 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 current derate by 20%.

|   | SYMBOLS         | ER2A        | ER2B | ER2C | ER2D | ER2E | ER2G | ER2J | UNITS              |
|---|-----------------|-------------|------|------|------|------|------|------|--------------------|
| Maximum repetitive 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 rectified current at $T_L=75^\circ\text{C}$                                       | $I_{(AV)}$      | 2.0         |      |      |      |      |      |      | A                  |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed on rated load                      | $I_{FSM}$       | 50.0        |      |      |      |      |      |      | A                  |
| Maximum instantaneous forward voltage at 2.0A   | $V_F$           | 0.95        |      |      |      | 1.25 |      | 1.7  | V                  |
| Maximum DC reverse current $T_A=25^\circ\text{C}$<br>at rated DC blocking voltage $T_A=100^\circ\text{C}$ | $I_R$           | 5.0<br>50.0 |      |      |      |      |      |      | $\mu\text{A}$      |
| Maximum reverse recovery time (NOTE 1)  | $t_{rr}$        | 35          |      |      |      |      |      |      | ns                 |
| Typical junction capacitance (NOTE 2)   | $C_J$           | 60.0        |      |      |      |      |      |      | pF                 |
| Typical thermal resistance (NOTE 3)   | $R_{\theta JA}$ | 68.0        |      |      |      |      |      |      | $^\circ\text{C/W}$ |
| Operating junction and storage temperature range  | $T_J, T_{STG}$  | -55 to +150 |      |      |      |      |      |      | $^\circ\text{C}$   |

**Note:** 1. Reverse recovery condition  $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$

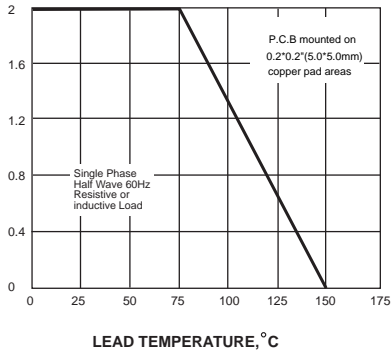
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

3. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

# RATINGS AND CHARACTERISTIC CURVES ER2A THRU ER2J

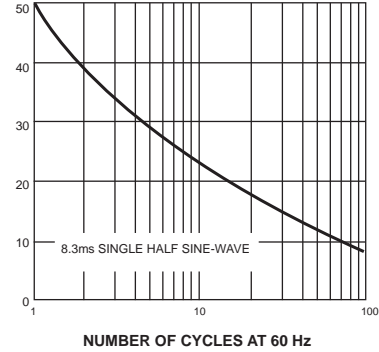
AVERAGE FORWARD RECTIFIED CURRENT, AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



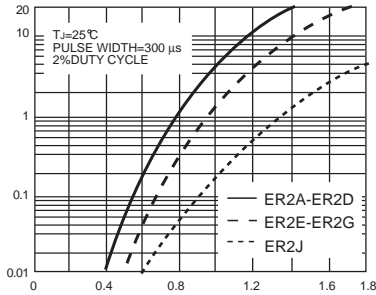
PEAK FORWARD SURGE CURRENT, AMPERES

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



INSTANTANEOUS FORWARD CURRENT, AMPERES

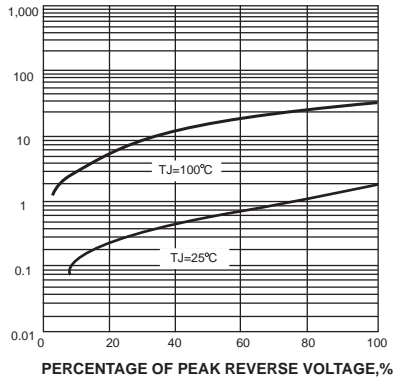
FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

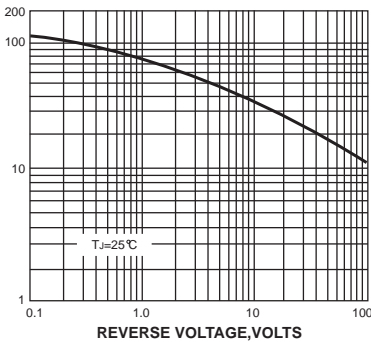
FIG. 4-TYPICAL REVERSE CHARACTERISTICS



PERCENTAGE OF PEAK REVERSE VOLTAGE, %

JUNCTION CAPACITANCE, pF

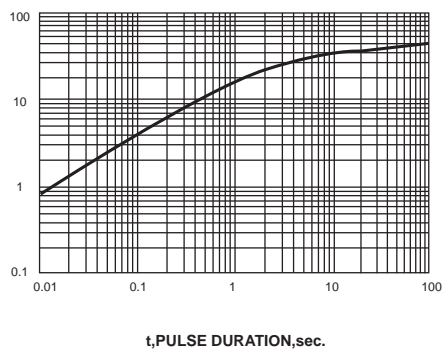
FIG. 5-TYPICAL JUNCTION CAPACITANCE



REVERSE VOLTAGE, VOLTS

TRANSIENT THERMAL IMPEDANCE, °C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



t, PULSE DURATION, sec.

单击下面可查看定价，库存，交付和生命周期等信息

[>>STAR\\_SEA\(星海\)](#)