

ER2A~ER2J

SURFACE MOUNT RECTIFIER

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

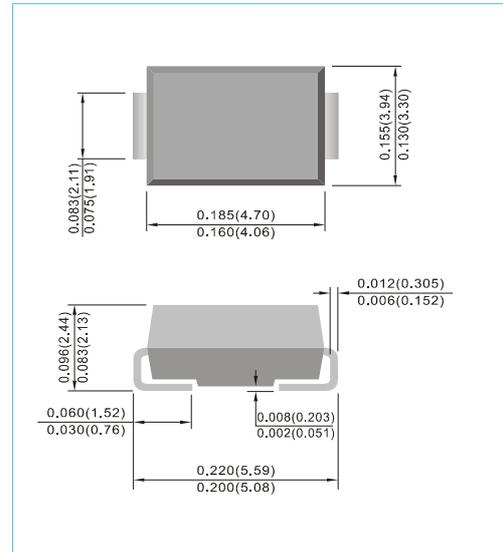
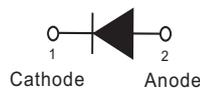
SMB / DO-214AA Unit : inch (mm)

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 $T_L=110^{\circ}C$	$I_{F(AV)}$	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 $T_J=25^{\circ}C$ $T_J=100^{\circ}C$	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)	$R_{\theta JL}$					20			$^{\circ}C / W$
Typical Thermal Resistance (Note 3)	$R_{\theta JC}$					15			$^{\circ}C / W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150							$^{\circ}C$

NOTES: 1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=-1A$, $I_{rr}=-0.25A$
 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

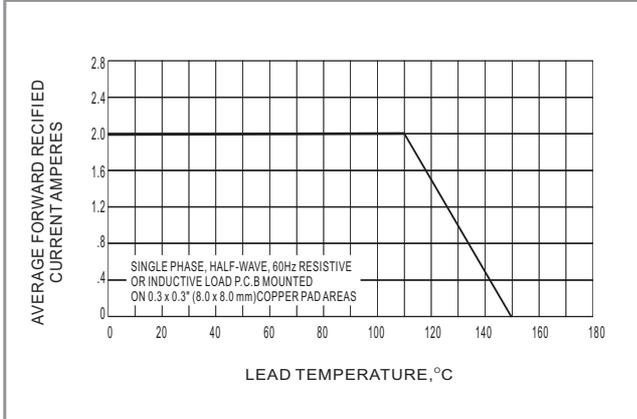


FIG. 1 MAXIMUM AVERAGE FORWARD CURRENT RATING

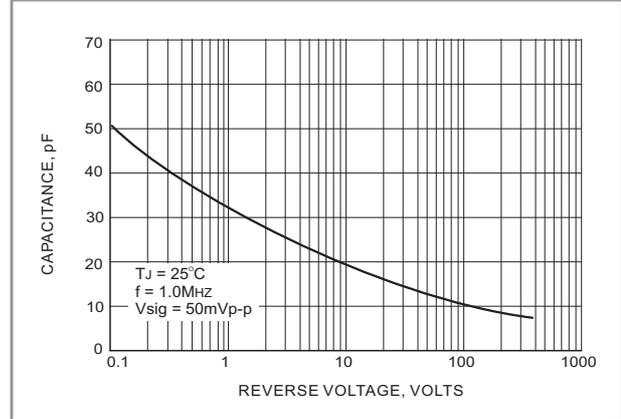


FIG. 2 TYPICAL JUNCTION CAPACITANCE

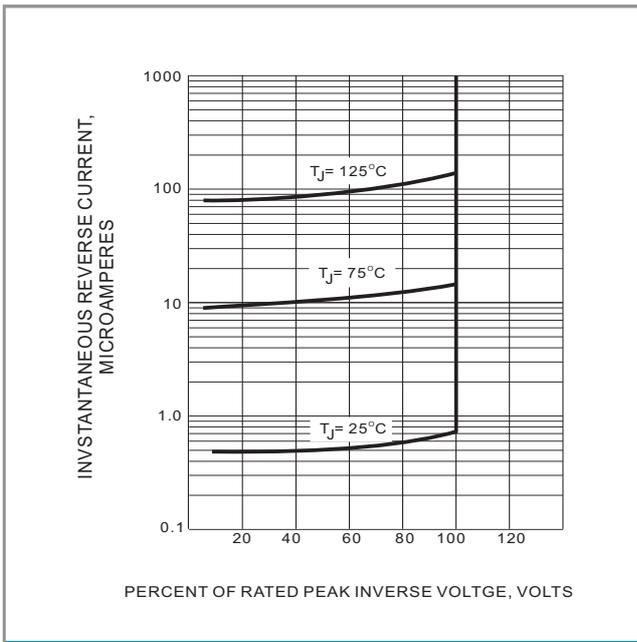


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

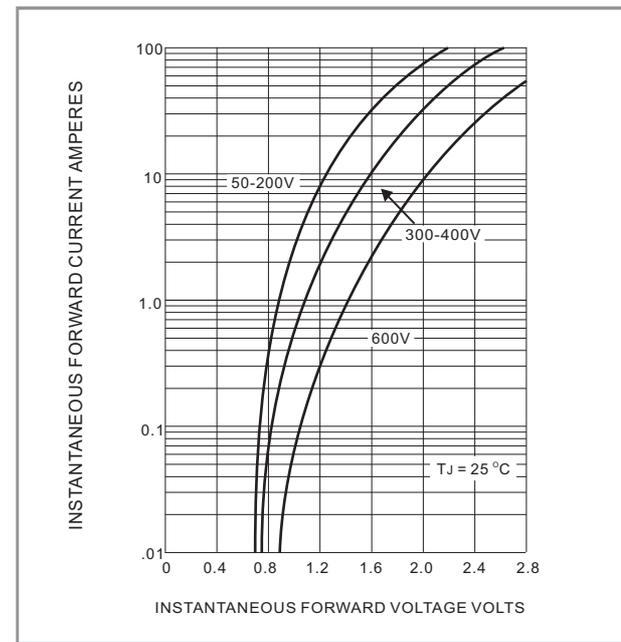


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

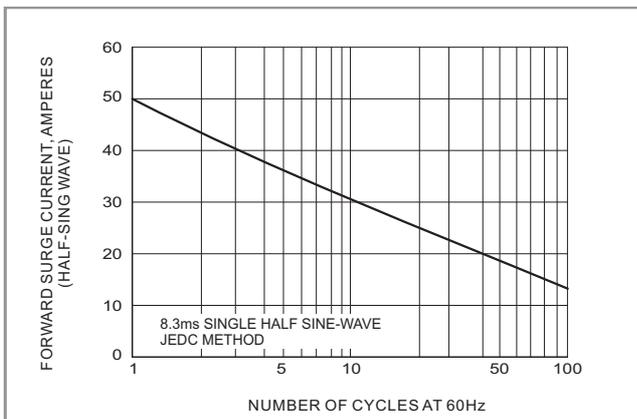
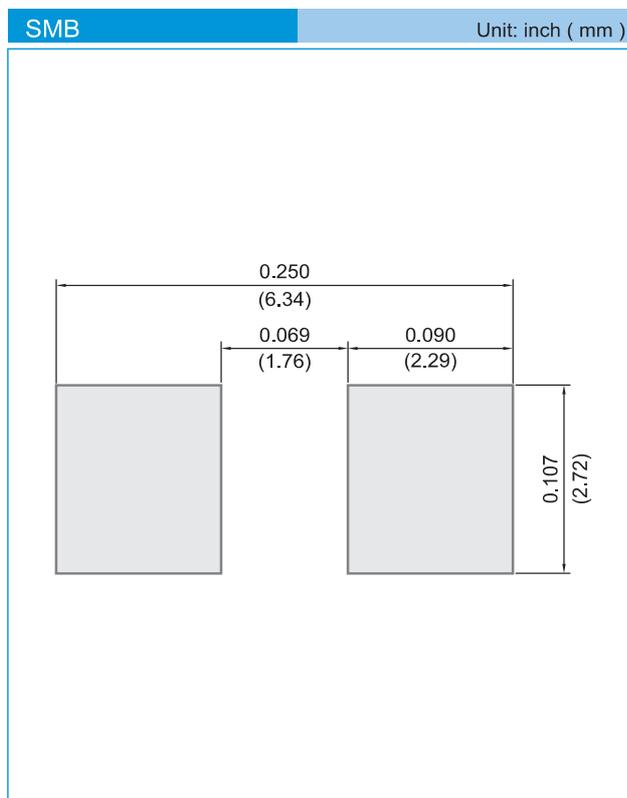


FIG. 5 MAXIMUM NON-REPEITIVE SURGE CURRENT

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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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