# **ER2A THRU ER2J**

# SURFACE MOUNT SUPERFAST RECTIFIER VOLTAGE - 50 to 600 Volts CURRENT - 2.0 Amperes

#### **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 /10 seconds at terminals

## **MECHANICAL DATA**

Case: JEDEC DO-214AA molded plastic

Terminals: Solder plated, solderable per MIL-STD-

750,

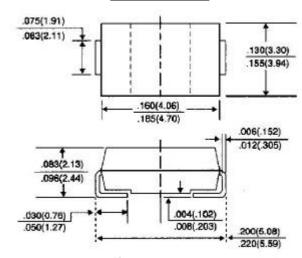
Method 2026

Polarity: Indicated by cathode band

Standard packaging: 12mm tape (EIA-481)

Weight: 0.003 ounce, 0.093 gram

### SMB/DO-214AA



Dimensions in inches and (millimeters)

#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	SYMBOLS	ER2A	ER2B	ER2C	ER2D	ER2E	ER2G	ER2J	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current, at T <sub>L</sub> =110	I <sub>(AV)</sub>	2.0							Amps
Peak Forward Surge Current 8.3ms single half sinewave superimposed on rated load(JEDEC method)	I <sub>FSM</sub>	50.0							Amps
Maximum Instantaneous Forward Voltage at 2.0A	$V_{F}$	0.95 1.25 1.7				1.7	Volts		
Maximum DC Reverse Current T <sub>A</sub> =25 At Rated DC Blocking Voltage T <sub>A</sub> =100	I <sub>R</sub>	5.0 150							Α
Maximum Reverse Recovery Time (Note 1)	$T_RR$	35.0							nS
Typical Junction capacitance (Note 2)	C	25.0							₽F
Typical Thermal Resistance (Note 3)	R JL	20.0							/W
Operating and Storage Temperature Range	$T_J, T_STG$	-50 to +150							

NOTES:

- 1. Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, Irr=0.25A
- 2. Measured at 1 MHz and Applied reverse voltage of 4.0 volts
- 3. 8.0mm<sup>2</sup> (.013mm thick) land areas

# RATING AND CHARACTERISTIC CURVES ER2A THRU ER2J

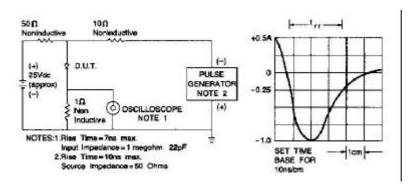


Fig. 1-REVERSE RECOVERY TIME CHARACTERISTIC AND TEST DIAGRAM

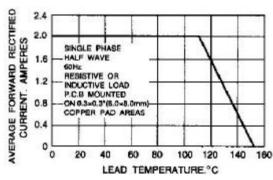


Fig. 2-MAXIMUM AVERAGE FORWARD

CURRENT RATING

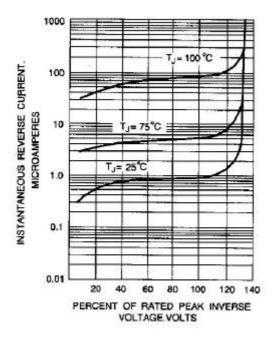


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

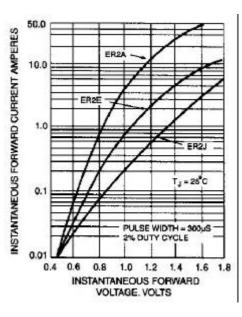


Fig. 4-TYPICAL FORWARD CHARACTERISTICS

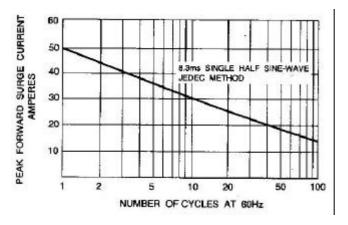


Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

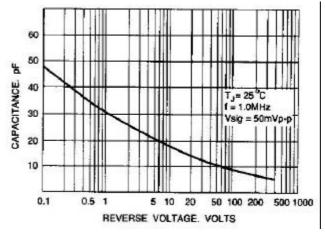


Fig. 6-TYPICAL JUNCTION CAPACITANCE