

## ES2A\_J

### SURFACE MOUNT ULTRAFAST EFFICIENT RECTIFIER

#### Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- Glass passivated chip junctions
- Ultrafast recovery times for high efficiency
- Low forward voltage, low power loss
- High temperature soldering guaranteed: 260°C/10

seconds on terminals

- RoHS Compliant Product

#### Mechanical Data

Case: JEDEC DO-214AA molded plastic body

Terminals: Solder plated, solderable per

MIL-STD-750, Method 2026

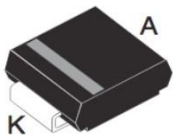
Polarity: Color band denotes cathode end

Weight: 0.002 ounces, 0.065 gram

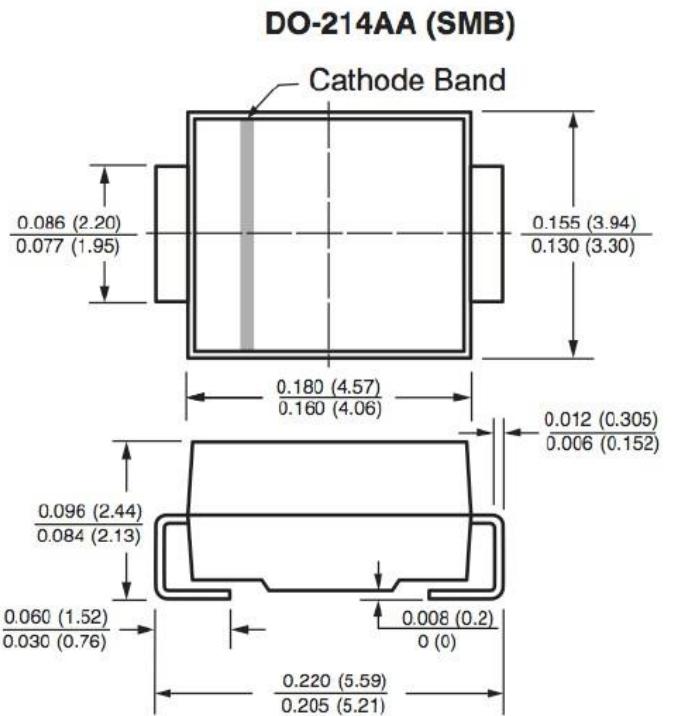
Package type : SMB

#### Packing & Order Information

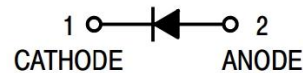
3,000/Reel



**RoHS**  
COMPLIANT



#### Graphic symbol



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		ES2A	ES2B	ES2D	ES2G	ES2J	Unit
$V_{RRM}$	Maximum repetitive peak reverse voltage	50	100	200	400	600	V
$V_{RWS}$	Maximum RMS voltage	35	70	140	280	420	V
$V_{DC}$	Maximum DC blocking voltage	50	100	200	400	600	V
$I_{F(AV)}$	Maximum average forward rectified current at $T_L=110^\circ\text{C}$	2					A
$I_{FSM}$	Peak forward surge current 8.3ms single half-sine-wave	30					A
$V_F$	Maximum instantaneous forward voltage at $I_{FM}=1.0\text{A}$	0.95		1.3		1.7	V
$I_R$	Maximum DC reverse current $T_J=25^\circ\text{C}$ At rated DC blocking voltage $T_A=100^\circ\text{C}$	10 200					$\mu\text{A}$

## ES2A\_J

### SURFACE MOUNT ULTRAFAST EFFICIENT RECTIFIER

Ratings at 25°C ambient temperature unless otherwise specified

		ES2A	ES2B	ES2D	ES2G	ES2J	Unit
T <sub>rr</sub>	Maximum reverse recovery time	30				50	nS
C <sub>j</sub>	Typical junction capacitance	25				19	PF
R <sub>θJA</sub>	Maximum thermal resistance	75					°C/W
R <sub>θJL</sub>		25					°C/W
T <sub>STG</sub>	Storage temperature range	-55 to +150					°C

NOTE:

1. Pluse test: Pulse width 300us, duty cycle 1%

## ES2A\_J

### SURFACE MOUNT ULTRAFAST EFFICIENT RECTIFIER

#### ■ Ratings and Characteristic Curves

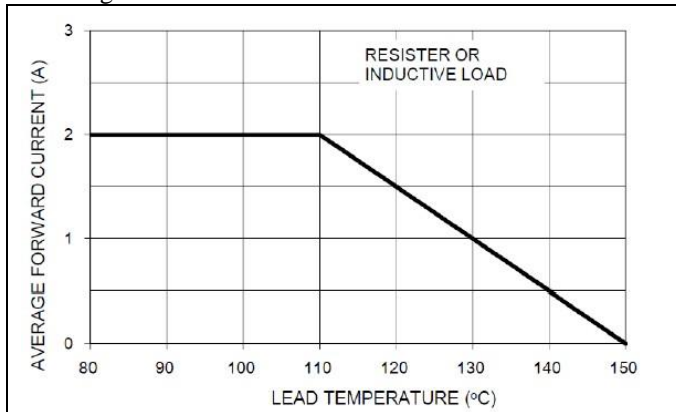


FIG.1-FORWARD DERATING CURVE

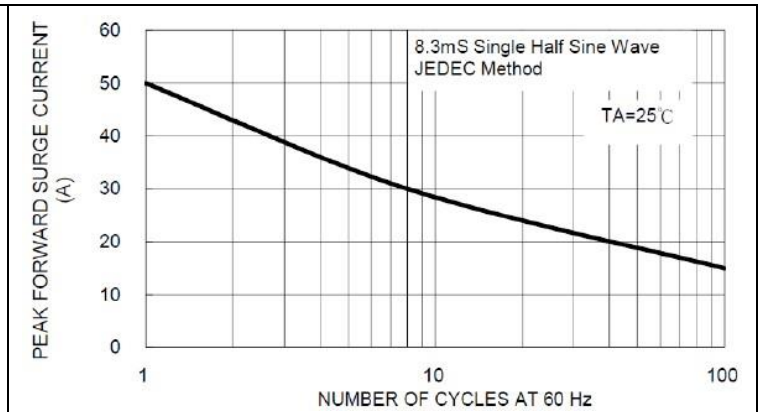


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

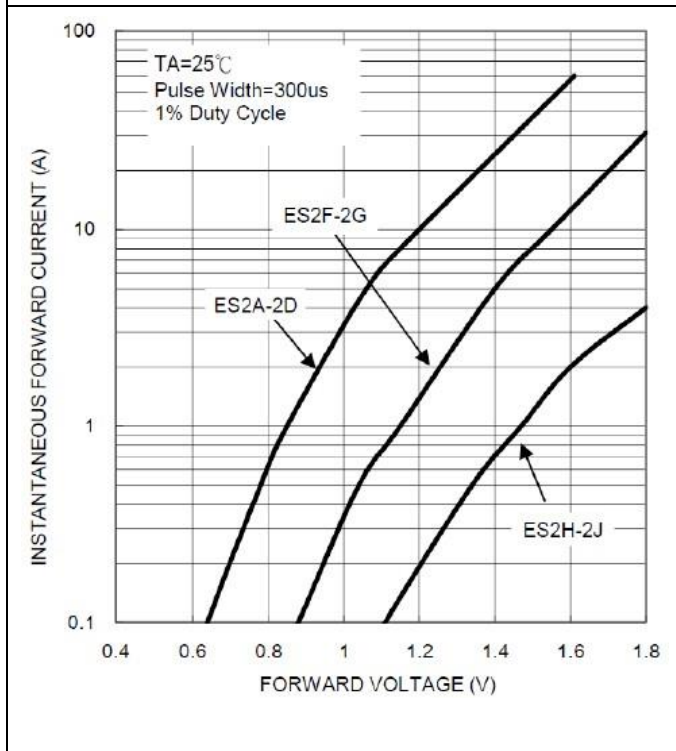


FIG.3-TYPICAL FORWARD CHARACTERISTICS

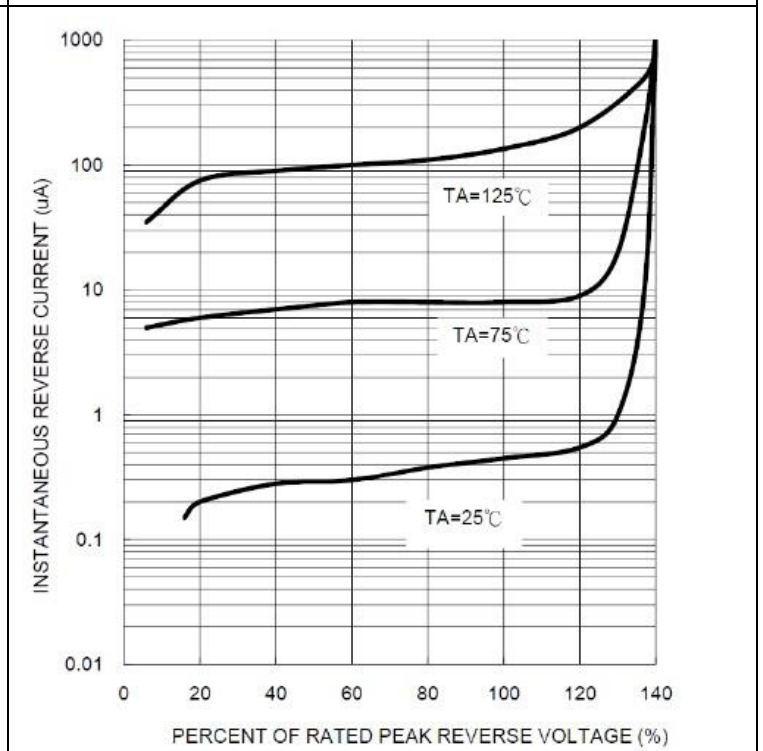


FIG.4-TYPICAL REVERSE CHARACTERISTICS

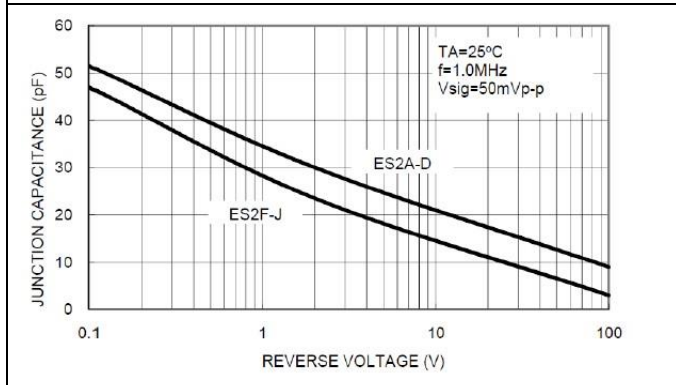


FIG.5-TYPICAL JUNCTION CAPACITANCE

## ES2A\_J

### SURFACE MOUNT ULTRAFAST EFFICIENT RECTIFIER

#### Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE

WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Bruckewell Technology Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Bruckewell"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Bruckewell makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Bruckewell disclaims

- (i) Any and all liability arising out of the application or use of any product.
- (ii) Any and all liability, including without limitation special, consequential or incidental damages.
- (iii) Any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Bruckewell's knowledge of typical requirements that are often placed on Bruckewell products in generic applications.

Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time.

Product specifications do not expand or otherwise modify Bruckewell's terms and conditions of purchase, including but not limited to the warranty expressed therein.