



# ES1A-AU~ES1J-AU

## SURFACE MOUNT SUPERFAST RECTIFIER

**VOLTAGE** 50 to 600 Volt **CURRENT** 1 Ampere

**SMA / DO-214AC**

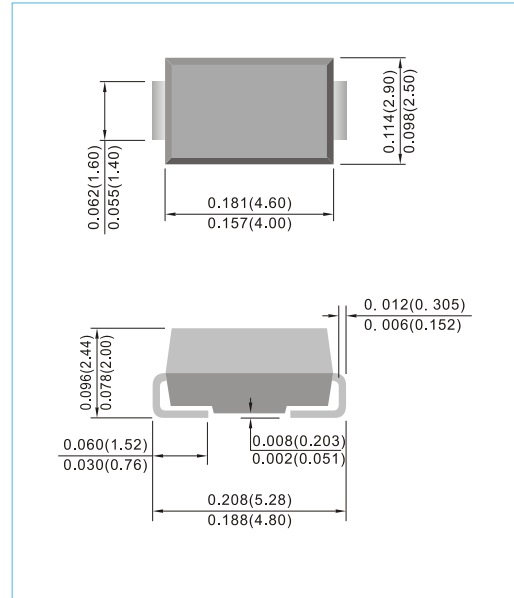
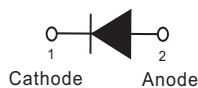
Unit : inch(mm)

### FEATURES

- For surface mounted applications in order to optimize board space
- 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
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard
- AEC-Q101 qualified

### MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.0023 ounces, 0.0679 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	ES1A -AU	ES1B -AU	ES1C -AU	ES1D -AU	ES1E -AU	ES1G -AU	ES1J -AU	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 at $T \leq 120^{\circ}\text{C}$	$I_{F(AV)}$	1							A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	30							A
Maximum Forward Voltage at 1A	$V_F$	0.95				1.25		1.7	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^{\circ}\text{C}$ $T_J = 100^{\circ}\text{C}$	$I_R$	1				150			$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$t_{rr}$	35							ns
Typical Junction Capacitance (Note 2)	$C_J$	7							pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	35							$^{\circ}\text{C} / \text{W}$
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150							$^{\circ}\text{C}$

**NOTES:**

- 1.Reverse Recovery Tset Conditions: $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{rr}=0.25\text{A}$
- 2.Measured at 1.0MHz and applied reverse voltage of 4.0 volt
- 3.8.0mm<sup>2</sup>( 0.013mm thick ) land areas.



# ES1A-AU~ES1J-AU

## RATING AND CHARACTERISTIC CURVES

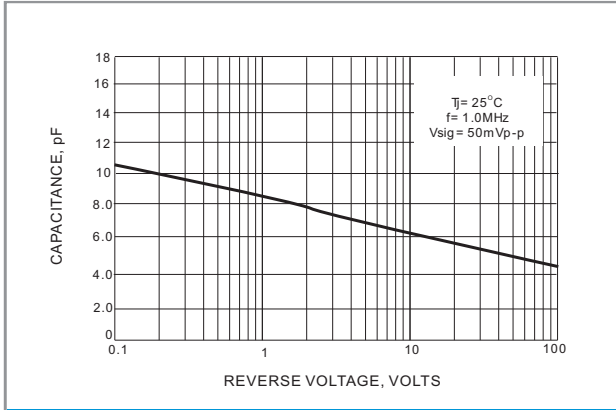


FIG. 1 TYPICAL JUNCTION CAPACITANCE

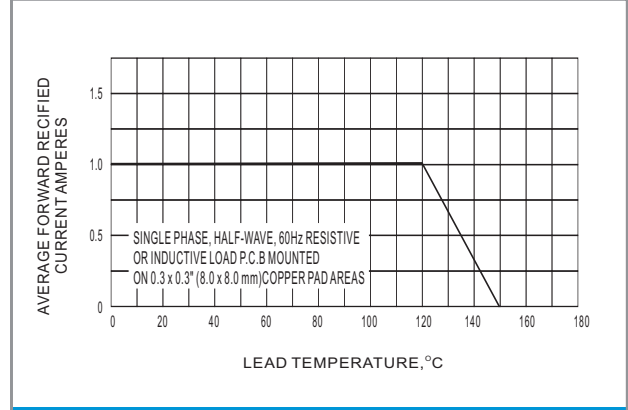


FIG. 2 MAXIMUM AVERAGE FORWARD CURRENT DERATING

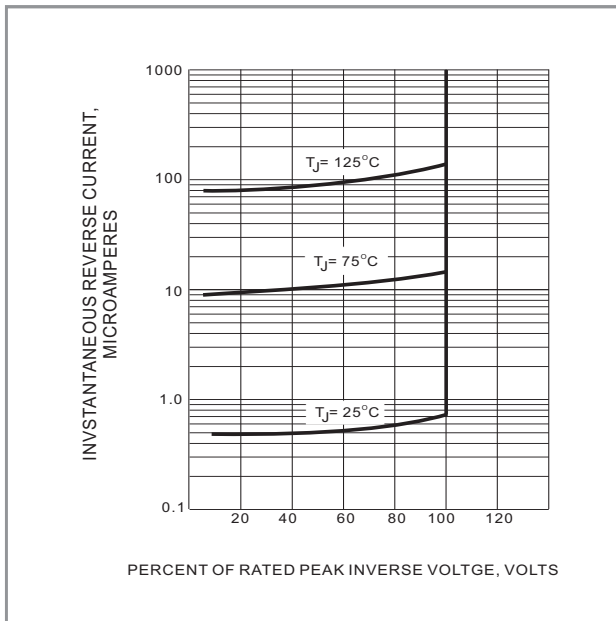


FIG. 3 TYPICAL REVERSE CHARACTERISTICS

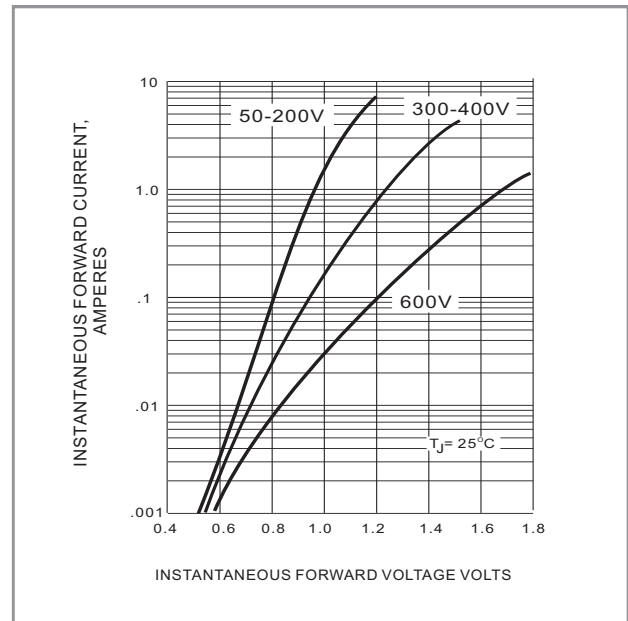


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

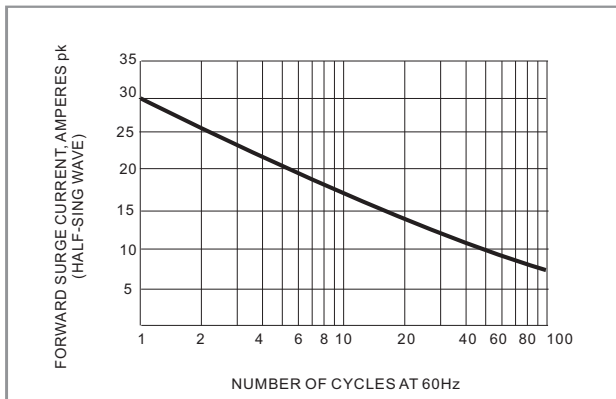
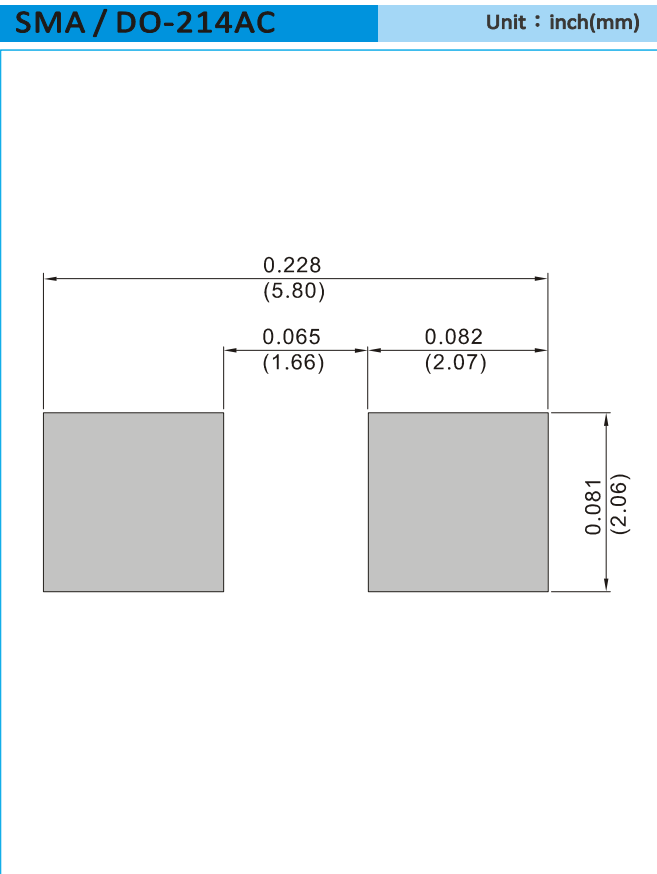


FIG. 5 MAXIMUM NON-REPEITIVE SURGE CURRENT



# ES1A-AU~ES1J-AU

## MOUNTING PAD LAYOUT



## ORDER INFORMATION

- Packing information  
T/R - 7.5K per 13" plastic Reel  
T/R - 1.8K per 7" plastic Reel



# ES1A-AU~ES1J-AU

## Part No\_packing code\_Version

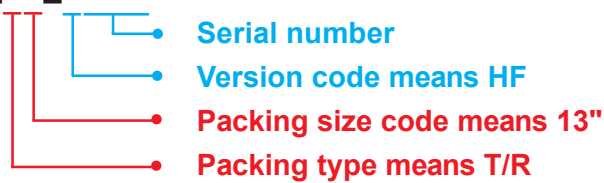
ES1A-AU\_R1\_000A1

ES1A-AU\_R2\_000A1

For example :

**RB500V-40\_R2\_00001**

Part No.



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
Tape and Reel (T/R)	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
Bulk Packing (B/P)	<b>B</b>	13"	<b>2</b>			
Tube Packing (T/P)	<b>T</b>	26mm	<b>X</b>			
Tape and Reel (Right Oriented) (TRR)	<b>S</b>	52mm	<b>Y</b>			
Tape and Reel (Left Oriented) (TRL)	<b>L</b>	PANASERT T/B CATHODE UP (PBCU)	<b>U</b>			
FORMING	<b>F</b>	PANASERT T/B CATHODE DOWN (PBCD)	<b>D</b>			



## ES1A-AU~ES1J-AU

---

### Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.

单击下面可查看定价，库存，交付和生命周期等信息

[>>Panjit\(强茂\)](#)