ER2A-AU ~ ER2J-AU Series

Surface Mount Super Fast Recovery Rectifier

Voltage 50~600 V **Current** 2 A

Features

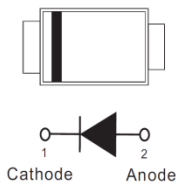
- For surface mounted applications
- High temperature metallurgically bonded-no compression contacts as found in other diode-constructed rectifiers
- Glass passivated junction
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification94V-O
- AEC-Q101 qualified
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

Mechanical Data

- Case : SMB Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.1089 grams

SMB





Maximum Ratings and Thermal Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER		SYMBOL	ER2A-AU	ER2B-AU	ER2C-AU	ER2D-AU	ER2E-AU	ER2G-AU	ER2J-AU	UNIT
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_R	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at T_L=110 °C		$I_{F(AV)}$	2							A
Peak Forward Surge Current : 8.3 ms Single Half Sine-Wave Superimposed On Rated Load		I_{FSM}	50							A
Forward Voltage at 2A		V_F	0.95				1.25		1.7	V
Reverse Current	T_J=25 °C	I_R	1							uA
	T_J=100 °C		150							
Typical Junction Capacitance Measured at 1 MHz And Applied V_R = 4V		C_J	25							pF
Reverse Recovery Time(Note 1)		T_{RR}	35							ns
Typical Thermal Resistance	(Note 2)	$R_{\theta JL}$	20							°C/W
	(Note 2)	$R_{\theta JC}$	15							
Operating Junction Temperature Range		T_J	-55~150							°C
Storage Temperature Range		T_{STG}	-55~150							°C

NOTES :

1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1A, Irr=0.25A.
2. Mounted on a FR4 PCB, single-sided copper, with 100cm^2 copper pad area.

ER2A-AU ~ ER2J-AU Series

TYPICAL CHARACTERISTIC CURVES

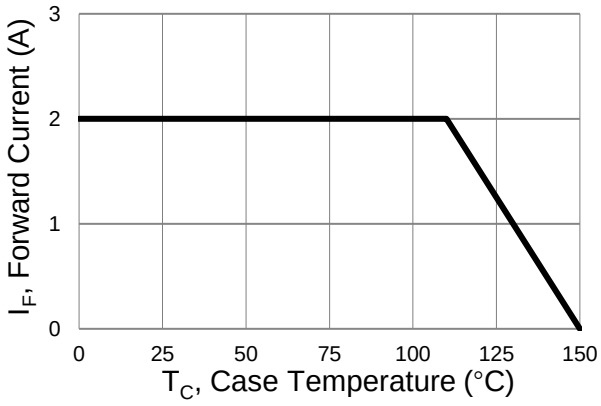


Fig.1 Forward Current Derating Curve

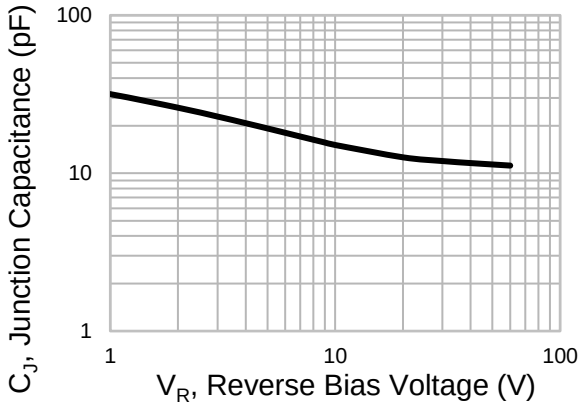


Fig.2 Typical Junction Capacitance

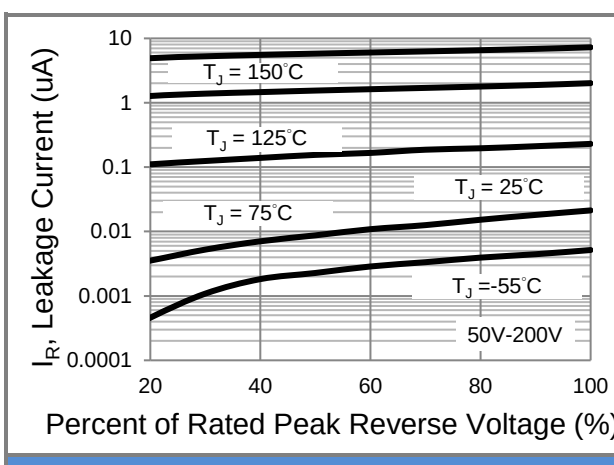


Fig.3 Typical Reverse Characteristics

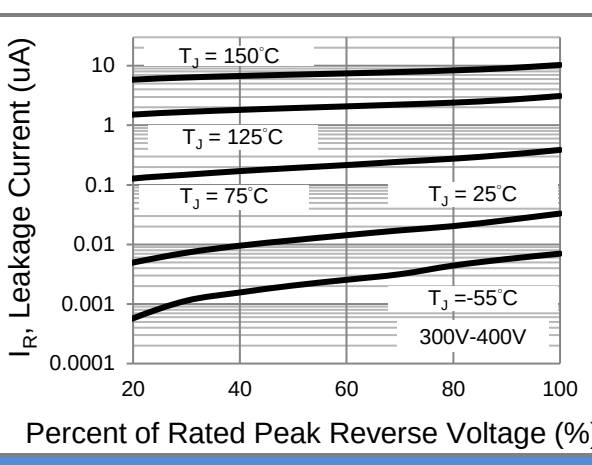


Fig.4 Typical Reverse Characteristics

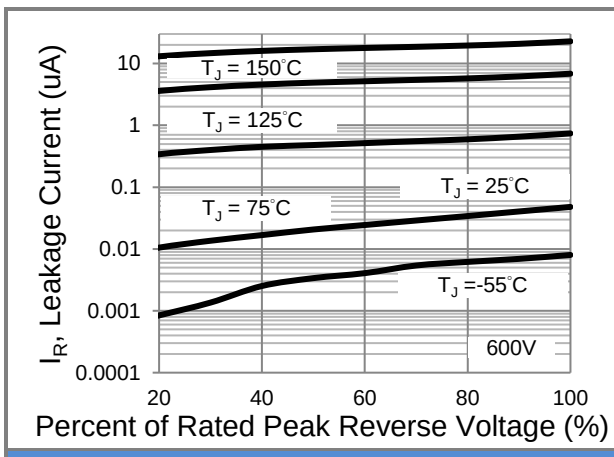


Fig.5 Typical Reverse Characteristics

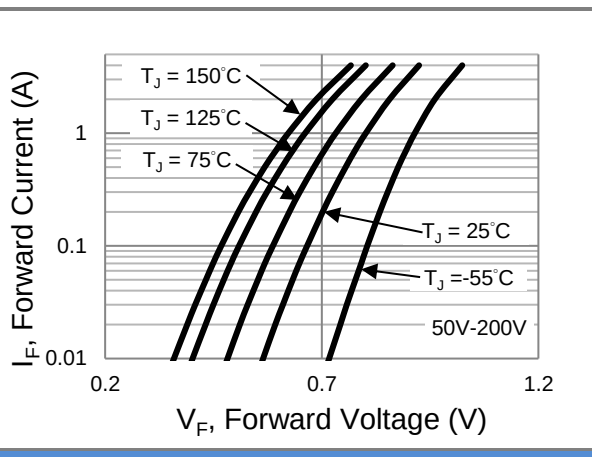


Fig.6 Typical Forward Characteristics

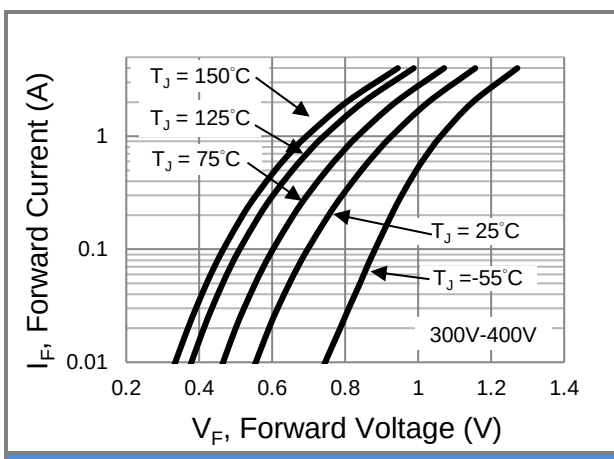


Fig.7 Typical Forward Characteristics

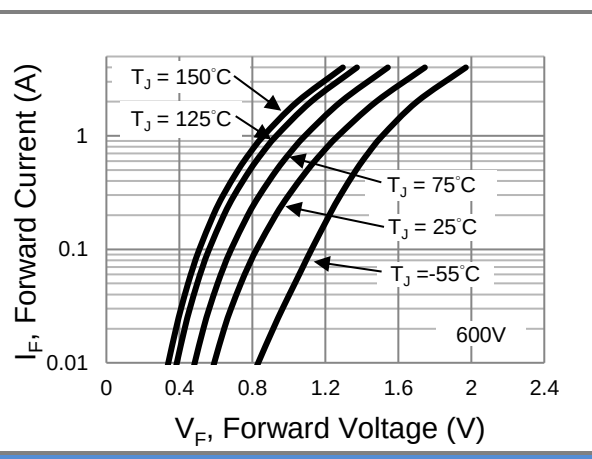


Fig.8 Typical Forward Characteristics

ER2A-AU ~ ER2J-AU Series

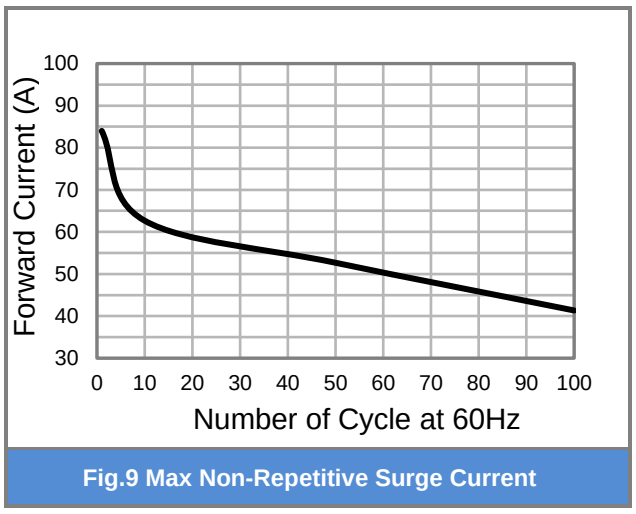


Fig.9 Max Non-Repetitive Surge Current

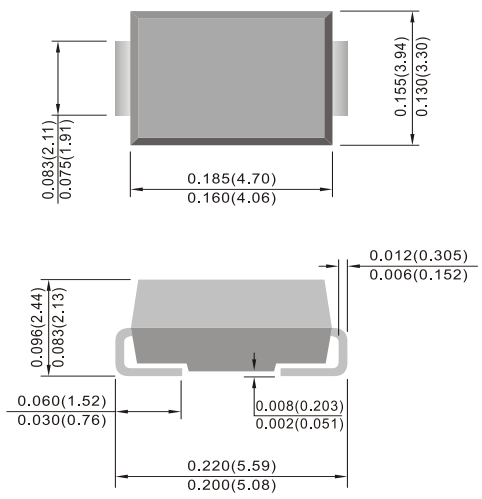
ER2A-AU ~ ER2J-AU Series

Product and Packing Information

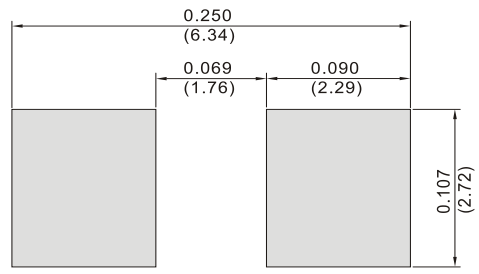
Part No.	Package Type	Packing Type	Marking
ER2A-AU	SMB	3K pcs / 13” reel	ER2A
ER2B-AU	SMB	3K pcs / 13” reel	ER2B
ER2C-AU	SMB	3K pcs / 13” reel	ER2C
ER2D-AU	SMB	3K pcs / 13” reel	ER2D
ER2E-AU	SMB	3K pcs / 13” reel	ER2E
ER2G-AU	SMB	3K pcs / 13” reel	ER2G
ER2J-AU	SMB	3K pcs / 13” reel	ER2J

Packaging Information & Mounting Pad Layout

SMB Dimension — Unit: inch(mm)



SMB Pad Layout — Unit: inch(mm)



ER2A-AU ~ ER2J-AU Series

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 follow PCN procedure. 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 or authorized for equipment relating to human life, life-saving or life-sustaining applications, such as medical instruments and aerospace machinery, or for other applications intended to cause personal injury. 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. For additional terms and conditions regarding the use of PANJIT products, please refer to the Terms of Use available on the PANJIT website.
- Since PANJIT uses lot number as the tracking base, please provide the lot number for tracking when complaining.