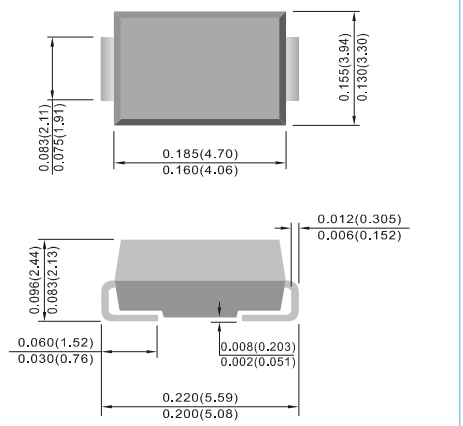
PANJIT SEMI CONDUCTOR

ER1A-AU ~ ER1J-AU Series

SURFACE MOUNT SUPER FAST RECTIFIER

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

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



FEATURES

- For surface mounted applications in order to optimize board space
- Easy pick and place
- Superfast recovery times for high efficiency.
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass passivated junction
- 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

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	ER1A-AU	ER1B-AU	ER1C-AU	ER1D-AU	ER1E-AU	ER1G-AU	ER1J-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_{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Current at T_L=100°C	$I_{F(AV)}$	1							A
Peak Forward Surge Current : 8. 3ms s ingle half sine-wave super imposed 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°C T_J=100°C	I_R	1 150							μA
Maximum Reverse Recovery Time (Note 1)	t_{rr}	35							ns
Typical Junction Capacitance (Note 2)	C_J	10							pF
Maximum Thermal Resistance (Note 3)	$R_{\theta JL}$	34							°C/W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	- 55 t o + 150							°C

NOTES :
1. Reverse Recovery Tset Conditions : I_F=0.5A,I_R=1A,Irr=0.25A.
2. Measured at 1MHz and applied reverse voltage of 4 volts.
3. 8mm^2(0.013mm thick) land areas.

ER1A-AU ~ ER1J-AU Series

TYPICAL CHARACTERISTIC CURVES

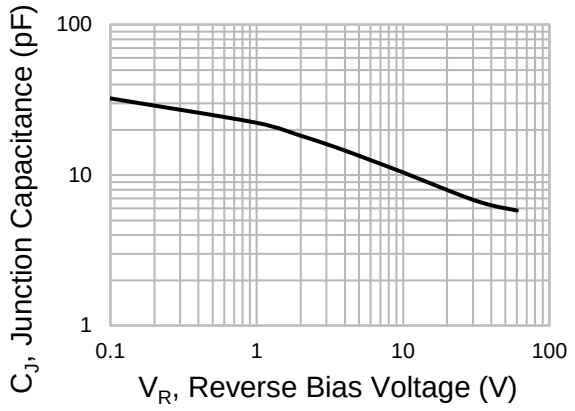


Fig.1 Typical Junction Capacitance

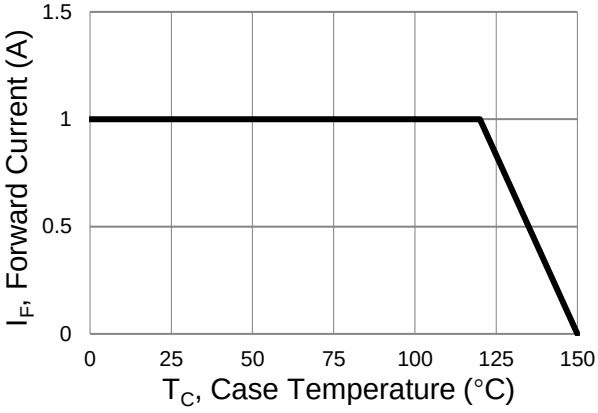


Fig.2 Forward Current Derating Curve

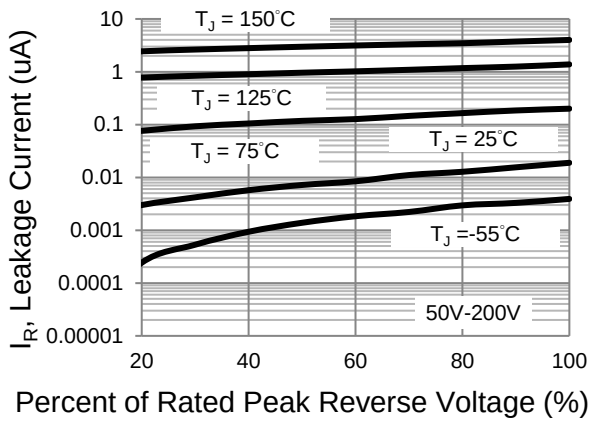


Fig.3 Typical Reverse Characteristics

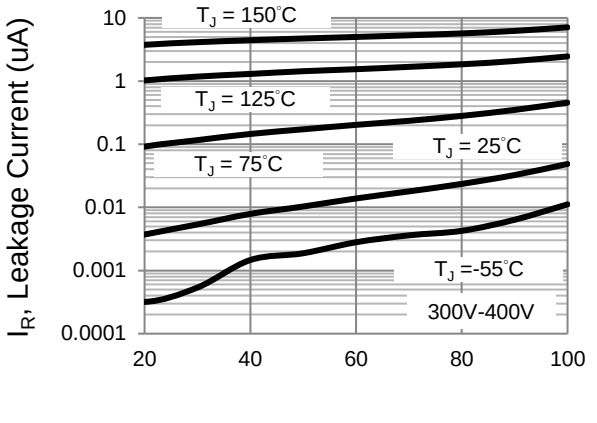


Fig.4 Typical Reverse Characteristics

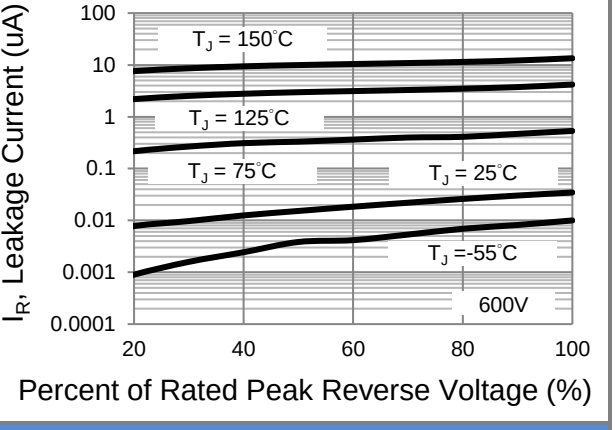


Fig.5 Typical Reverse Characteristics

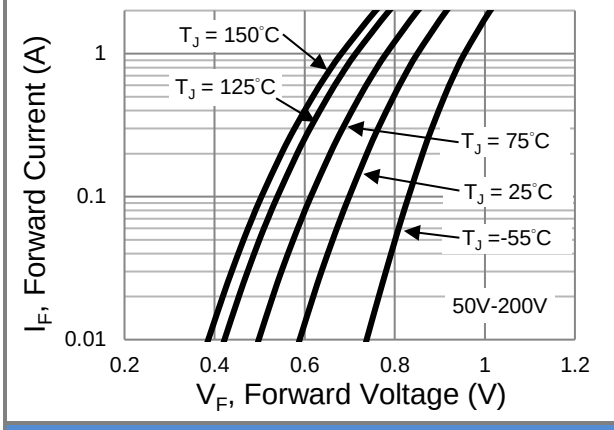


Fig.6 Typical Forward Characteristics

ER1A-AU ~ ER1J-AU Series

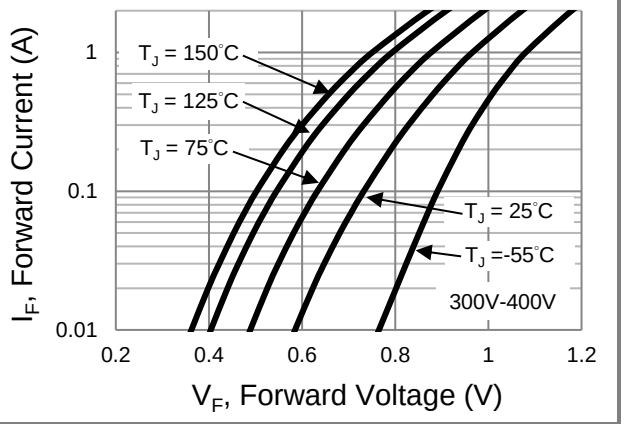


Fig.7 Typical Forward Characteristics

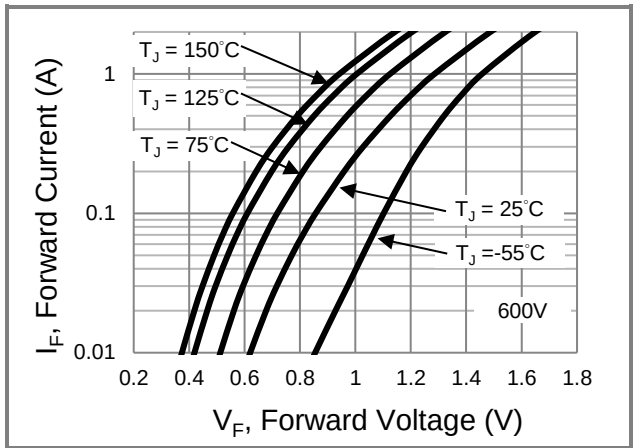


Fig.8 Typical Forward Characteristics

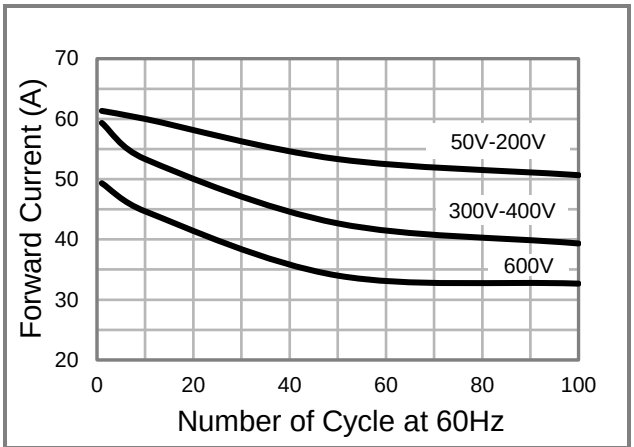


Fig.9 Max Non-Repetitive Surge Current

ER1A-AU ~ ER1J-AU Series

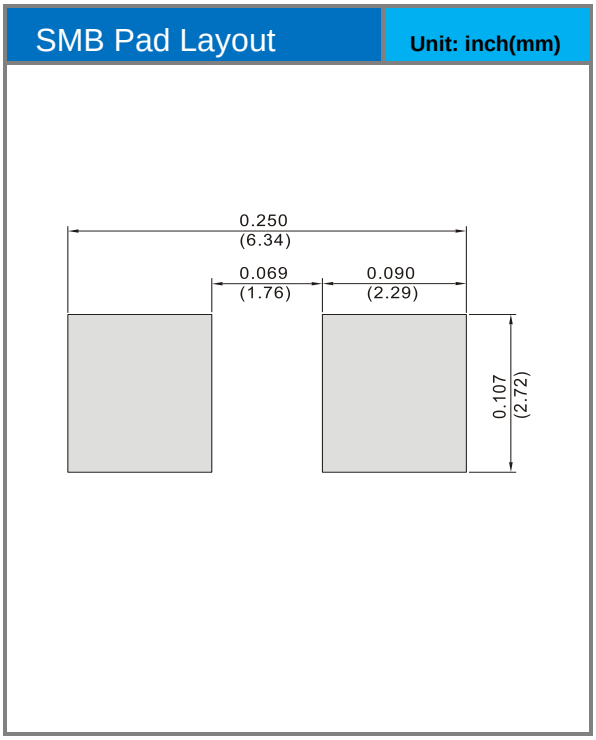
Product and Packing Information

Part No.	Package Type	Packing Type	Marking
ER1A-AU	SMB	0.8K pcs / 7” reel	ER1A
ER1A-AU	SMB	3K pcs / 13” reel	ER1A
ER1B-AU	SMB	0.8K pcs / 7” reel	ER1B
ER1B-AU	SMB	3K pcs / 13” reel	ER1B
ER1C-AU	SMB	0.8K pcs / 7” reel	ER1C
ER1C-AU	SMB	3K pcs / 13” reel	ER1C
ER1D-AU	SMB	0.8K pcs / 7” reel	ER1D
ER1D-AU	SMB	3K pcs / 13” reel	ER1D
ER1E-AU	SMB	0.8K pcs / 7” reel	ER1E
ER1E-AU	SMB	3K pcs / 13” reel	ER1E
ER1G-AU	SMB	0.8K pcs / 7” reel	ER1G
ER1G-AU	SMB	3K pcs / 13” reel	ER1G
ER1J-AU	SMB	0.8K pcs / 7” reel	ER1J
ER1J-AU	SMB	3K pcs / 13” reel	ER1J

ER1A-AU ~ ER1J-AU Series

Mounting Pad Layout

SMB Pad Layout | Unit: inch(mm)



ER1A-AU ~ ER1J-AU Series

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