RS3AF~RS3MF

ROHS

Surface Mount Fast Recovery Rectifiers

www.unsemi.com.tw

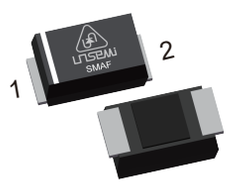
Features

- For surface mounted applications
- Low profile package
- Glass passivated chip junction
- Easy to pick and place
- Fast reverse recovery time
- Lead free in comply with EU RoHS 2011/65/EU directives

Mechanical Data

- Case: SMAF
- Quantity Per Reel : 3,000pcs
- Approx. Weight : 27mg/0.00095oz
- Terminals: Solderable per MIL-STD-750, Method 2026

SMAF



1：Cathode

2：Anode

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 current derate by 20%.

Parameter		Symbol	RS3AF	RS3BF	RS3DF	RS3GF	RS3JF	RS3KF	RS3MF	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage		V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage		V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at Tc=125℃		$I_{F(AV)}$	3.0							A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load		I_{FSM}	80							A
Max Instantaneous Forward Voltage at 3A		V_F	1.3							V
Maximum DC Reverse Current at Rated DC Reverse Voltage	Ta=25℃	I_R	5.0							μA
	Ta=125℃	I_R	100							
Typical Junction Capacitance at V_R=4V, f=1MHz		Cj	32							pF
Maximum Reverse Recovery Time (1)		Trr	150				250	500		nS
Typical Thermal Resistance (2)		$R_{\theta JA}$	50							℃/W
		$R_{\theta JC}$	16							
Operating and Storage Temperature Range		T_J,Tstg	-55 ~ +150							℃

Note:(1) Measured with IF=0.5A, IR=1A, Irr=0.25A

(2) P.C.B. mounted with 2.0" X 2.0" (5 X 5cm) copper pad areas.

Electrical Characteristics Curves

Fig.1 Forward Current Derating Curve

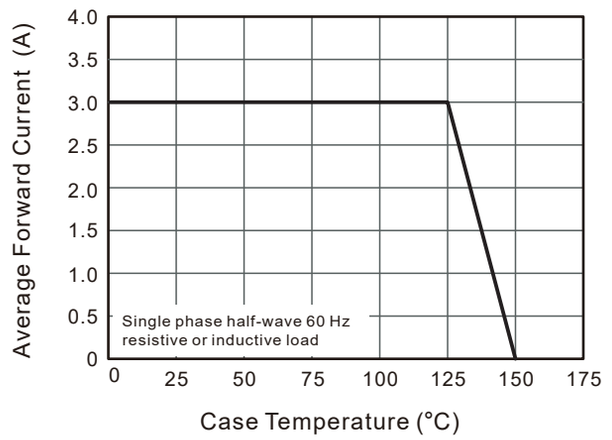


Fig. 2 Typical Reverse Characteristics

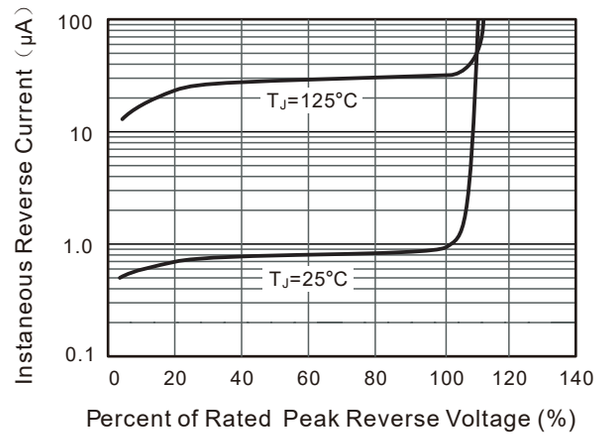


Fig.3 Typical Forward Characteristic

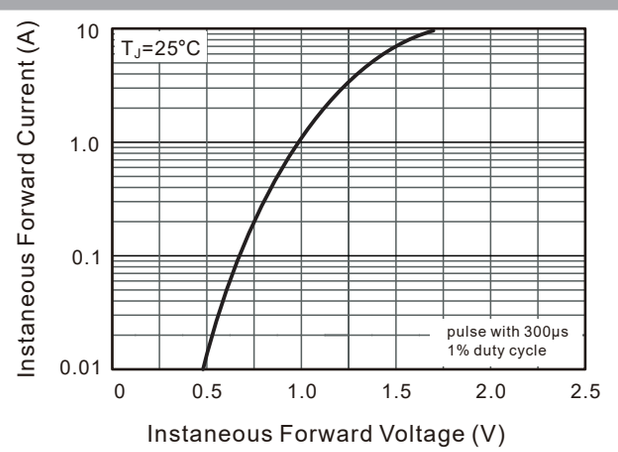


Fig. 4 Typical Junction Capacitance

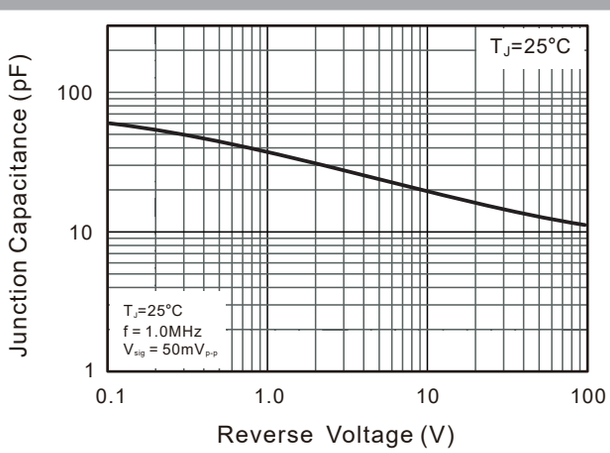
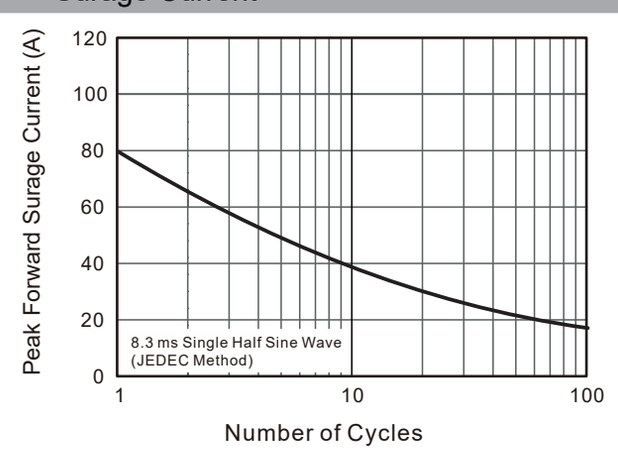
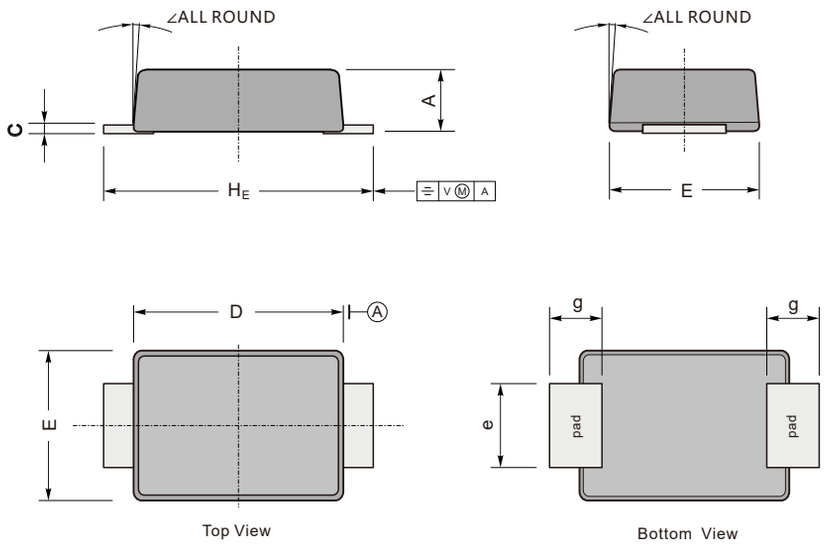


Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



Package Outline & Dimensions



UNIT		A	C	D	E	e	g	H_E	∠
mm	max	1.2	0.20	3.7	2.7	1.6	1.2	4.9	7°
	min	0.9	0.12	3.3	2.4	1.3	0.8	4.4	
mil	max	47	7.9	146	106	63	47	193	
	min	35	4.7	130	94	51	31	173	

Marking

Type Number	RS3AF	RS3BF	RS3DF	RS3GF	RS3JF	RS3KF	RS3MF
Making	RS3A	RS3B	RS3D	RS3G	RS3J	RS3K	RS3M

優恩半導體 UNSEMI

ROHS

Disclaimer

UNSEMI RESERVES THE RIGHT TO MAKE CHANGE ON OUR PRODUTS , PRODUCTS SPECIFICATION AND DATA WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

UN SEMICONDUCTOR LIMITED its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “UNSEMI”)does not give any representations or warranties for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

In no event shall UNSEMI be liable for any indirect, incidental, punitive, special or consequential damages (including any and all implied warranties, warranties of fitness for particular purpose, non-infringement and merchantability.) whether or not such damages are based on tort (including negligence), warranty, breach of contract or any other legal theory.

Statements regarding the suitability of products for certain types of applications are based on UNSEMI knowledge of typical requirements that are often placed on UNSEMI 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 or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify UNSEMI's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Unless otherwise agreed in writing, UNSEMI product is not designed, authorized or warranted to be suitable for use in medical life-saving, or life-sustaining application , nor in applications where failure or malfunction of a UNSEMI product can reasonably be expected to result in personal injury, death or severe property or environmental damage. UNSEMI and its suppliers accept no liability for inclusion or use of UNSEMI products in such equipment or applications and therefore such inclusion and/or use is at the customer's own risk.

All referenced brands, product names, service names and trademarks are the property of their respective owners.