



1. Features

- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-0

SMC(DO-214AB)



Cathode ————— Anode

2. Mechanical Data

- Case: Molded plastic SMC
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: as marked on case
- Mounting Position: Any
- Marking: Type Number

3. Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified Single phase, half wave, 60Hz, resistive or inductive load
For capacitive load derate current by 20%

Type Number	Symbol	UF3AC	UF3BC	UF3DC	UF3GC	UF3JC	UF3KC	UF3MC	Unit
Maximum Recurrent 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
Average Rectified Output Current @ $T_L=90^\circ\text{C}$	$I_{F(AV)}$				3.0				A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}				110				A
Forward Voltage @ $IF=3.0\text{A}$	V_{FM}		1.0		1.3		1.7		V
Peak Reverse Current @ $T_A=25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R				3.0				mA
1 ² t Rating for fusing ($t < 8.3\text{ms}$)	I^2t				50.2				A^2s
Maximum Reverse Recovery Time (Note1)	T_{rr}		50			75			ns
Typical Junction Capacitance (Note2)	C_J			25					pF
Typical Thermal Resistance	$R_{\theta JL}$			12					$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J			-55 to +150					$^\circ\text{C}$
Storage Temperature Range	T_{STG}			-55 to +150					$^\circ\text{C}$

Note:

1. Reverse Recovery Test

Conditions: $IF=0.5\text{A}$, $IR=1.0\text{A}$, $IRR=0.25\text{A}$.

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C.



4. Rating And Characteristic Curves

Fig. 1 Forward Current Derating Curve

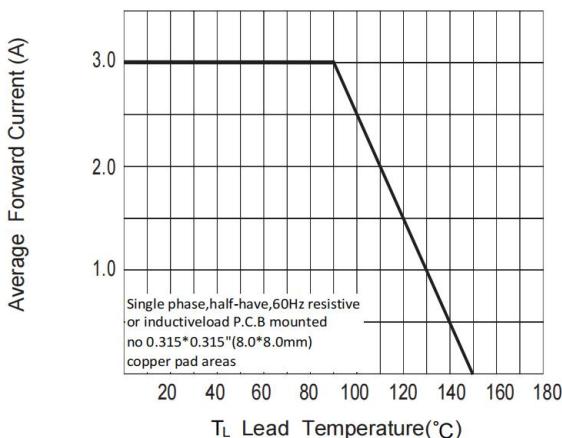


Fig. 2 Typ. Forward Characteristics

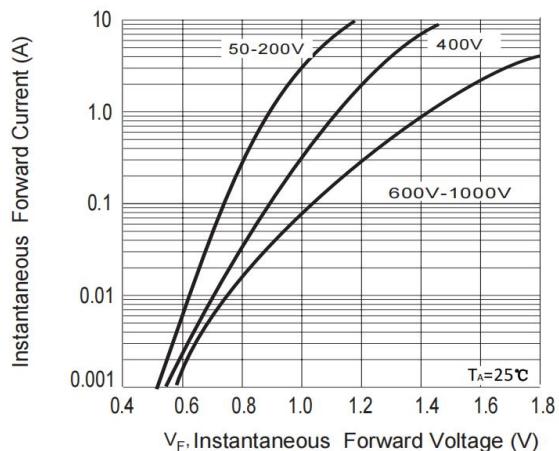


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

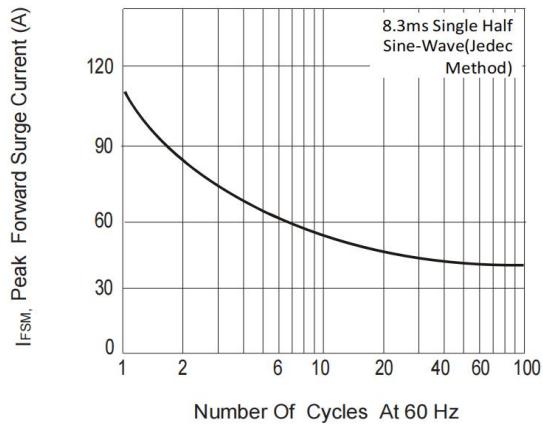


Fig.4 Typical Reverse Characteristics

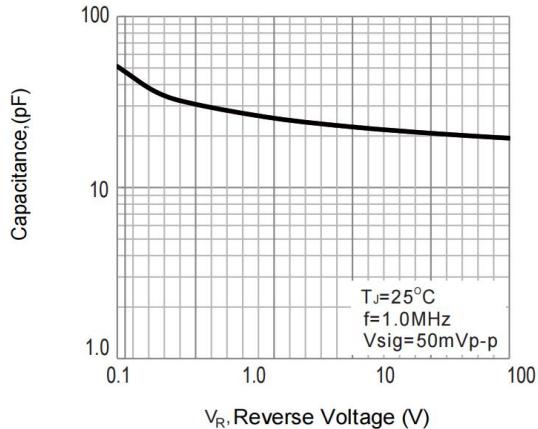


Fig.5 Typical Reverse Characteristics

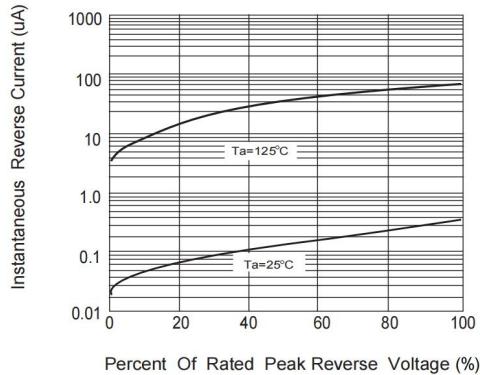
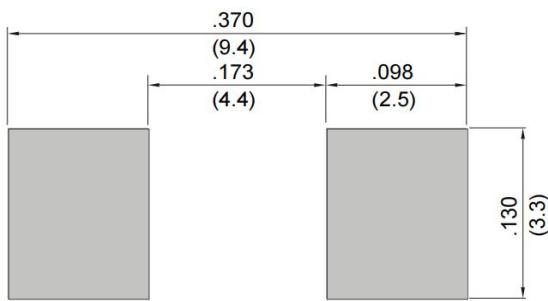
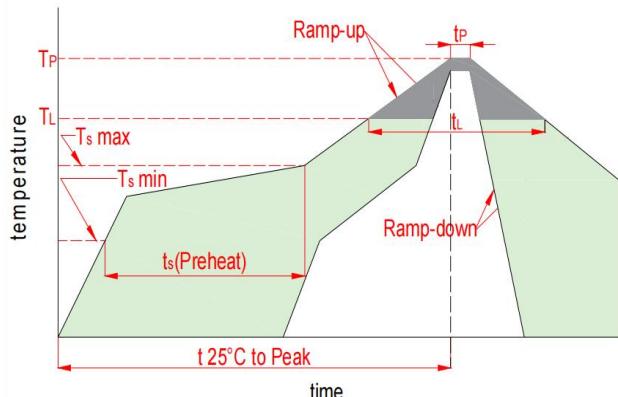


Fig.6 Mounting PAD Layout



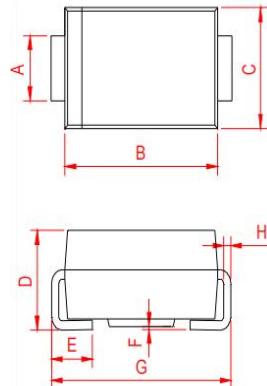


5. Soldering Parameters

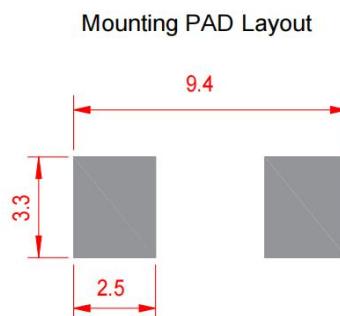


Reflow Condition		Lead-free
Pre Heat	Temp. min(T_s (min))	150°C
	Temp. max(T_s (min))	200°C
	Time(min to max)(t_s)	60~120s
Reflow	Aver. ramp up rate(Liquidus Temp.)(T_s) to peak	3°C/s max
	T_s (max) to T_l -Ramp-up Rate	3°C/s max
	Temp.(T_l)(Liquidus)	217°C
Reflow	Temp.(t_l)(Liquidus)	60~150s
	Peak Temp.(T_p)	260 ⁺⁰⁻⁵ °C
	Time within actual peak Temp.(t_p)	30s max
Ramp-down Rate		6°C/s max
Time 25°C to peak Temp.(T_p)		8 minutes max
Do not exceed		260°C

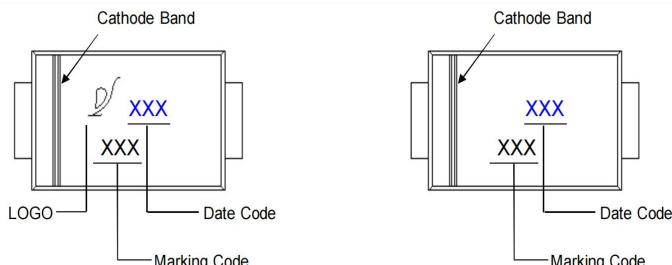
6. Dimensions



Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.110	0.126	2.80	3.20
B	0.260	0.280	6.60	7.11
C	0.220	0.245	5.59	6.22
D	0.087	0.103	2.20	2.62
E	0.039	0.063	1.00	1.60
F	0.002	0.008	0.05	0.20
G	0.305	0.320	7.75	8.13
H	0.006	0.014	0.15	0.35



7. Part Marking System



8. Package Information

Package	Tape Width (mm)	Reel Size		Quantity(pcs)
		mm	Inch	
SMC(DO-214AB)	16	330	13	3000



Important Notice and Disclaimer

- Reproducing and modifying information of the document is prohibited without from XINNUO.
- XINNUO reserves the right to make changes to this document and its products and specifications.
- XINNUO disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- XINNUO does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the here in document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. XINNUO makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown her are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, 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 XINNUO for any damages resulting from such improper use or sale.
- Since XINNUO uses lot number as the tracking base, please provide the lot number for tracking when complaining.