

Features

- Low Power Loss,High Efficiency
- Ideally Suited for Automatic Assembly
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability Classification Rating 94V-0



Mechanical Data

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

SMC(DO-214AB)

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	SS 52	SS 53	SS 54	SS 545	SS 55	SS 56	SS 58	SS 510	SS 515	SS 520	SS 525	Unit	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	20	30	40	45	50	60	80	100	150	200	250	V	
Maximum RMS Voltage	V _{RMS}	14	21	28	31	35	42	56	70	105	140	175	V	
Maximum DC Blocking Voltage	V _{DC}	20	30	40	45	50	60	80	100	150	200	250	V	
Average Rectified Output Current @T _L =100 °C	I _{F(AV)}	5.0											A	
Non-Repetitive Peak Forward Surge @T _j =25 °C Current 8.3ms Single half sine-wave@T _j =125 °C Superimposed On Rated Load (JEDEC Method)	I _{FSM}	100 80											A	
Non-Repetitive Peak Forward Surge @T _j =25 °C Current 1.0ms Single half sine-wave @T _j =125 °C Superimposed On Rated Load (JEDEC Method)	I _{FSM}	200 160											A	
10000 times of the wave surge current (time width 1ms, time interval 3s)	I _{FSM}	70											A	
I ² t Rating for Fusing (t < 8.3ms)	I ² t	33.615											A ² s	
Forward Voltage @IF=5.0A	V _{FM}	0.55				0.7		0.85		0.92		0.95	V	
Peak Reverse Current @T _A =25°C	I _R	0.1						0.05						mA
At Rated DC Blocking Voltage @T _A =100 °C		10						5						
Typical Junction Capacitance (Note 1)	C _J	170						100						pF
Typical Thermal Resistance per leg	R _{θ JA}	78											°C/W	
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to+150											°C	

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

Fig. 1 Forward Current Derating Curve

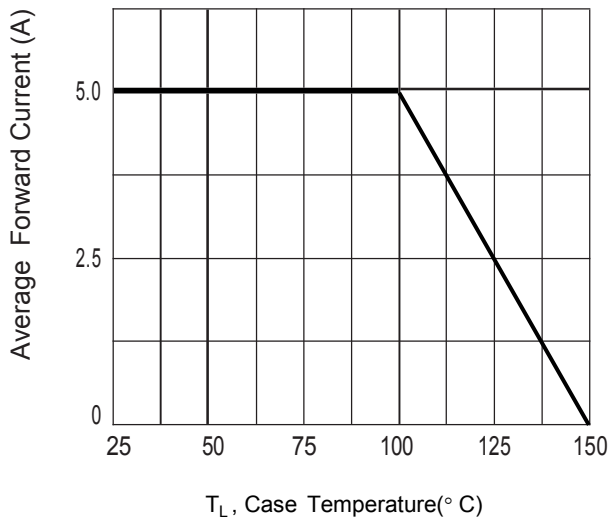


Fig. 2 Typ. Forward Characteristics

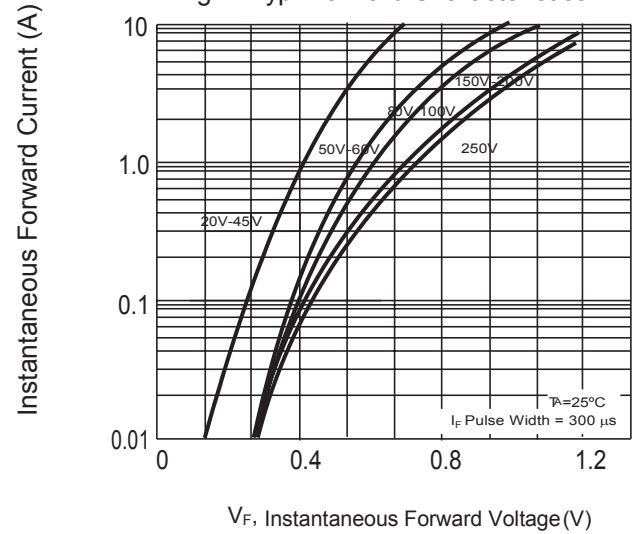


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

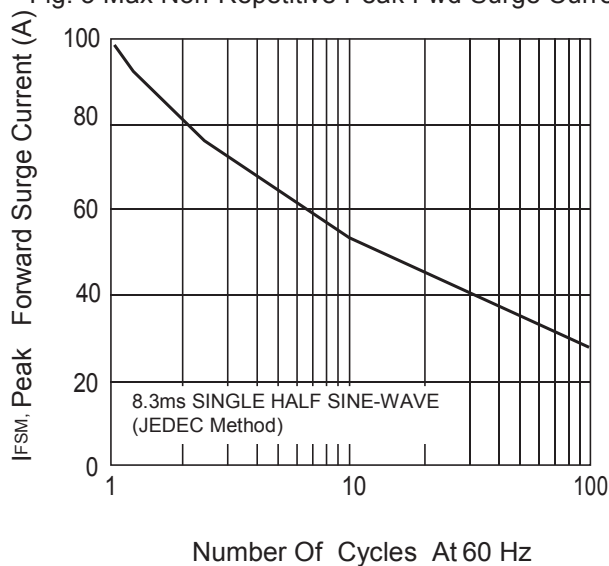


Fig.4 Typical Reverse Characteristics

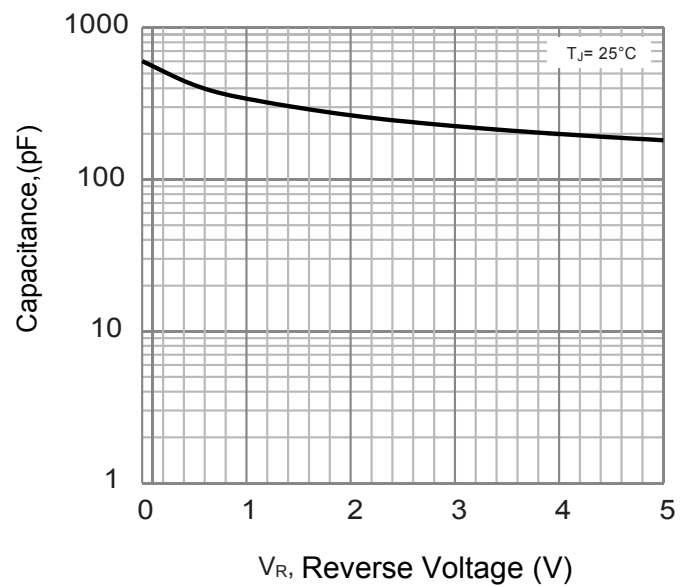
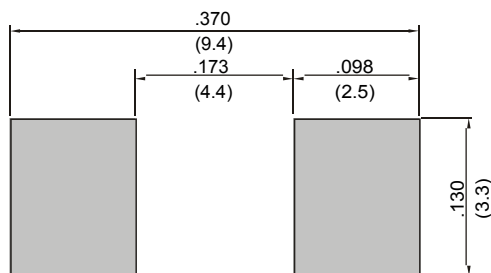
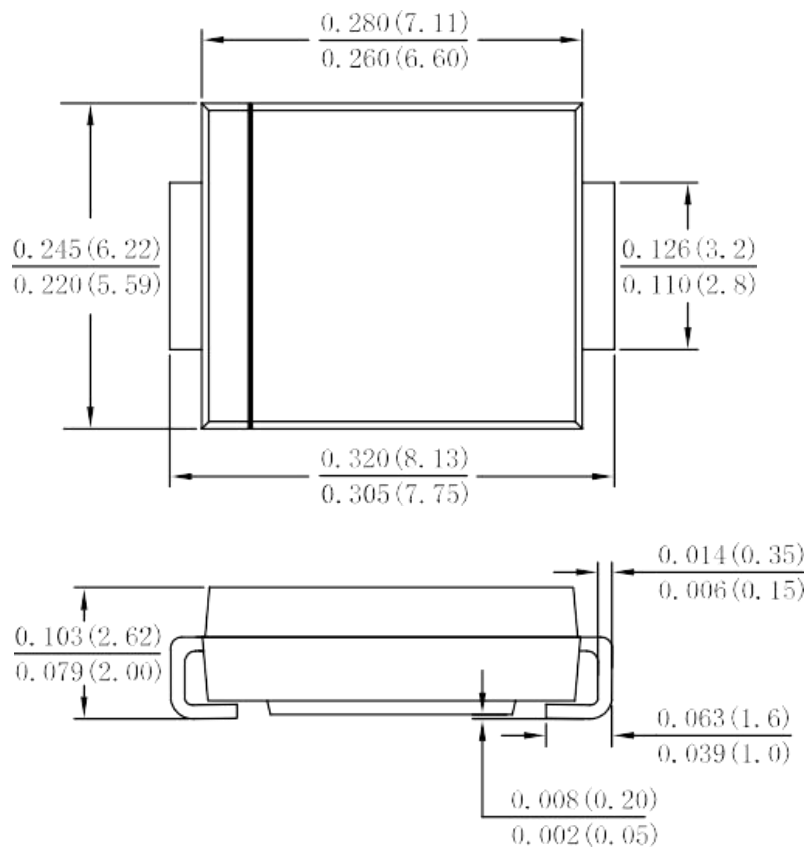


Fig.5 Mounting PAD Layout



Case: SMC(DO-214AB)

Dimensions in inches and (millimeters)



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