

S5AC THRU S5MC

5.0 AMP Surface Mount Passivated Rectifiers

Features

Glass Passivated Die Construction

Low forward voltage drop

High current capability

High reliability

Metal silicon junction, majority carrier conduction

Plastic Case Material has UL Flammability

Classication Rating 94V-0

Mechanical Data

Case: Molded plastic SMC

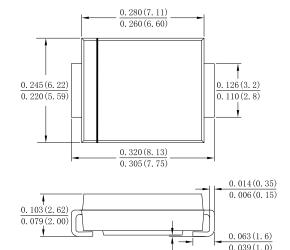
Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed

Polarity: as marked on case

Mounting Position: Any

Making: Type Number

Case: SMC(DO-214AB)



Dimensions in inches and (millimeters)

0.008(0.20) 0.002(0.05)

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	Symbols	S5AC	S5BC	S5DC	S5GC	S5JC	S5KC	S5MC	Units
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 _C =110 °C	IF(AV)	5.0							А
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)	İfsm	175 140							А
Non-Repetitive Peak Forward Surge @Tj=25 ℃ Current 1.0ms Single half sine-wave @Tj=125℃ Superimposed On Rated Load (JEDEC Method)	Ігэм	350 280							А
10000 times of the wave surge current (time width 1ms, time interval 3s)	lгsм	131.25							А
I ² t Rating for Fusing (t < 8.3ms)	l ² t	127.1							A ² S
Forward Voltage @IF=5.0A	V _F	1.0							V
Peak Reverse Current @T _A =25 °C		5.0							uA
At Rated DC Blocking Voltage @T _A =125°C	l _R	100							
Typical Junction Capacitance (Note 1)	CJ	45							pF
Typical Thermal Resistance	R ejl R eja	9 13 77							°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

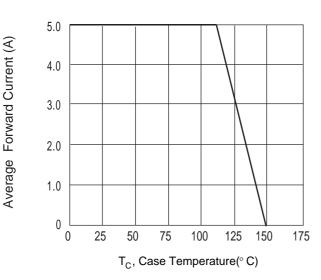
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Fig. 1 Forward Current Derating Curve



Instantaneous Forward Current (A)

Fig. 2 Typ. Forward Characteristics

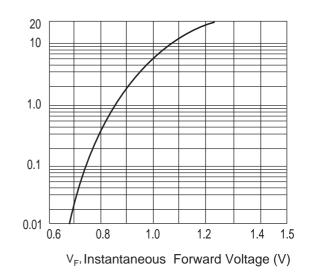
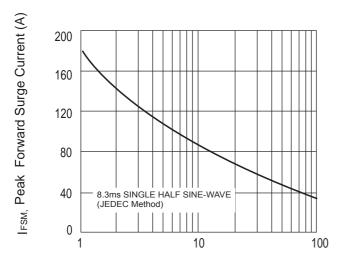
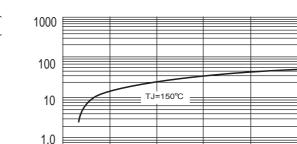


Fig.4 Typical Reverse Chracteristics

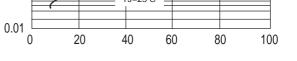
Fig. 3 Max Non-Repetitive Peak Fwd Surge Current







0.1

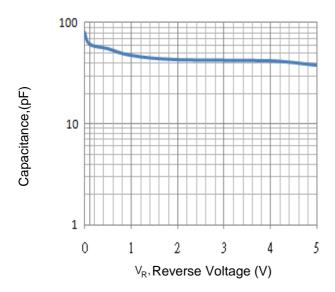


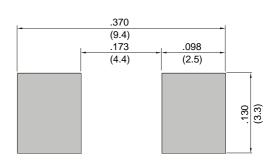
Percent Of Rated Peak Reverse Voltage (%)

Number Of Cycles At 60 Hz

Fig.5 Typical Junction Capacitance

Fig.6 Mounting PAD Layout





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