



FR5AC THRU FR5MC

5.0 AMP Surface Mount Fast Recovery Rectifiers

Features

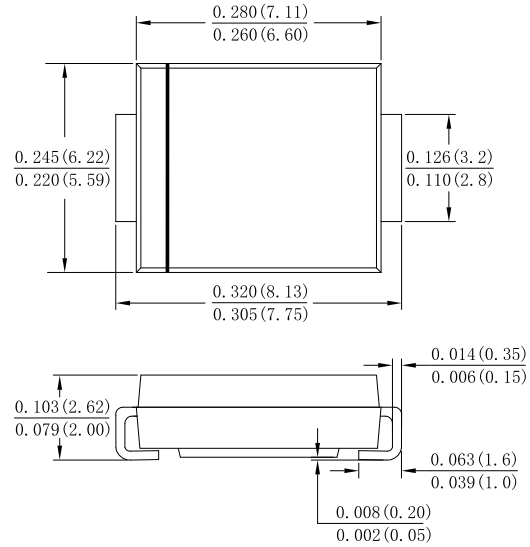
- Deally Suited for Automatic Assembly
- Low Power Loss,High Efficiency
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability

Classification Rating 94V-0

Mechanical Data

- Case: Molded plastic SMC
- Terminals: Plated leads solderable per MIL-STD-750,Method 2026 guaranteed
- Polarity:Cathode Band or Cathode Notch
- Mounting Position: Any
- Making: Type Number

Case: SMC(DO-214AB)



Dimensions in inches and (millimeters)

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	FR5AC	FR5BC	FR5DC	FR5GC	FR5JC	FR5KC	FR5MC	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 °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}	150 120							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}	300 240							A
10000 times of the wave surge current (time width 1ms, time interval 3s)	I _{FSM}	112.5							A
I ² t Rating for Fusing (t < 8.3ms)	I ² t	52.52							A ² S
Forward Voltage @IF=5.0A	V _{FM}	1.3							V
Peak Reverse Current @T _A =25 °C	I _R	5.0							uA
At Rated DC Blocking Voltage @T _A =125 °C		100							
I ² t Rating for Fusing (t < 8.3ms)	I ² t	26.56							A ² s
Maximum Reverse Recovery Time(Note 1)	T _{rr}	150				250	500		ns
Typical Junction Capacitance (Note 2)	C _J	65				30			pF
Typical Thermal Resistance Junction to Ambient	R _{θ JA}	15							°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to+150							°C

Note: 1.Reverse Recovery Test Conditions: $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$.

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



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Fig. 1 Forward Current Derating Curve

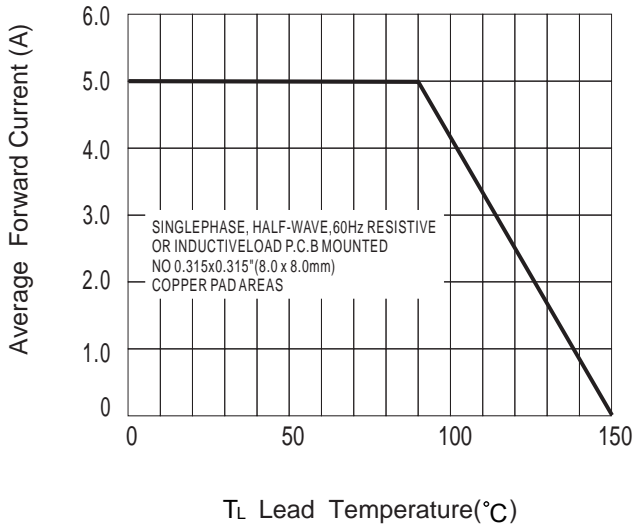


Fig. 2 Typ. Forward Characteristics

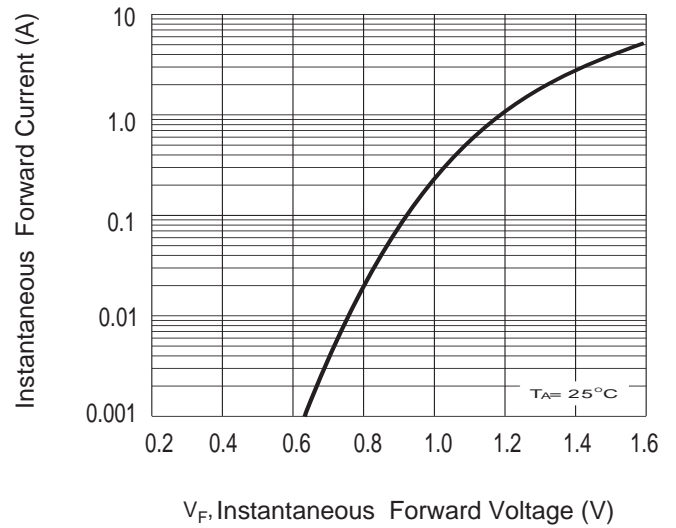


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

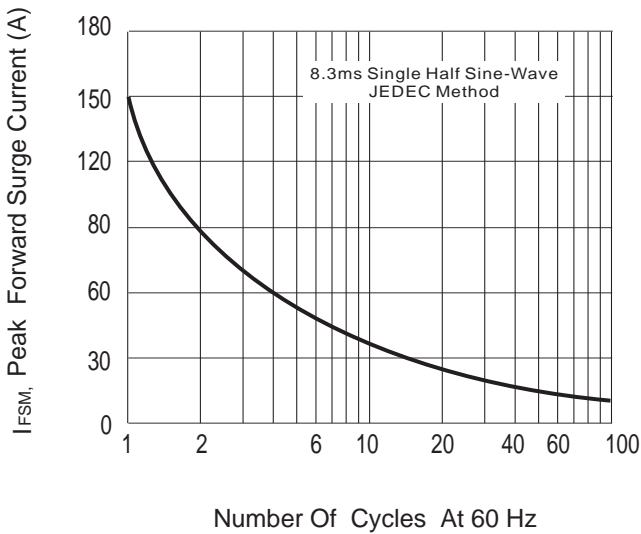


Fig.4 Typical Junction Capacitance

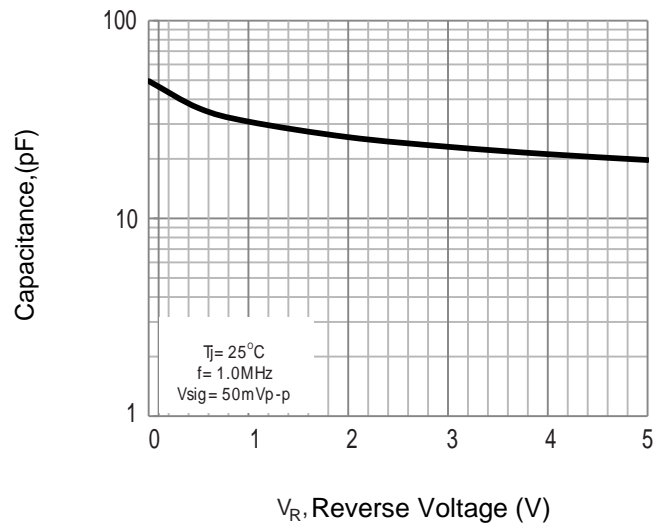


Fig.5 Typical Reverse Characteristics

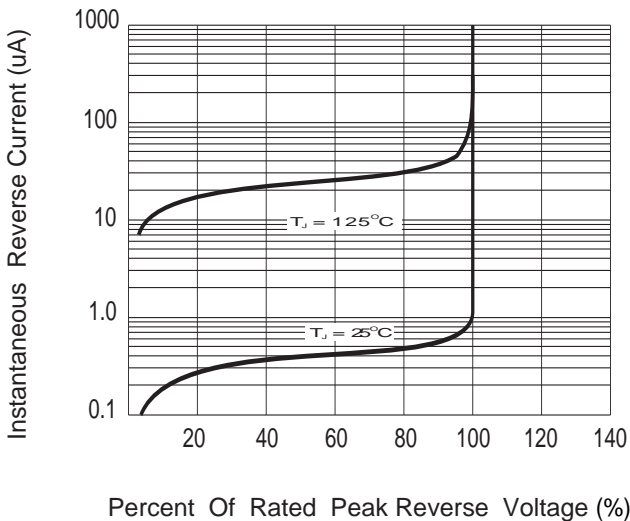
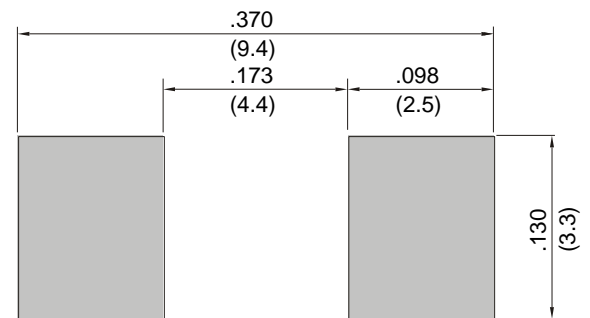


Fig.6 Mounting PAD Layout





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