SEMICONDUCTOR

# SS810C-V

## AUTOMOTIVE SCHOTTKY BARRIER RECTIFIER

Reverse Voltage-100Volts
Forward Current-8.0Amperes

## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260℃/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU
- AEC-Q101 qualified and PPAP capable

Pb RoHS COMPLIANT

RoHS REACH IATF16949认证

AEC-Q101 Qualified

SMC(DO-214AB)


## MECHANICAL DATA

- Case: JEDEC SMC(DO-214AB) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end
- Weight: 0.007ounce,0.21 gram

Marking:

JF:Logo
xxxx:Date code
SS810C-V:Type

## TYPICAL APPLICATIONS

For use in low voltage,high frequency inverter,DC/DC converters,
free wheeling,and polarity protection applications

## MAXIMUM RATINGS

(Ratings at 25℃ ambient temperature unless otherwise)

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 100 | V |
| Maximum average forward rectified current | $I_{F(AV)}$ | 8.0 | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL) | $I_{FSM}$ | 150 | A |
| Operating junction temperature range | $T_J$ | -55 to +150 | ℃ |
| Storage temperature range | $T_{stg}$ | -55 to +150 | ℃ |

## ELECTRICAL CHARACTERISTCS（$T_A$=25℃ Unless otherwise noted）

| Parameter | Test Conditions | | Symbol | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Instaneous Forward Voltage | $T_J$=25℃ | $I_F$=1A | $V_F$ 1) | 0.52 | - | V |
| | | $I_F$=3A | | 0.63 | - | |
| | | $I_F$=8A | | 0.75 | 0.82 | |
| | $T_J$=125℃ | $I_F$=1A | | 0.40 | | |
| | | $I_F$=3A | | 0.51 | - | |
| | | $I_F$=8A | | 0.59 | - | |
| Reverse Current | $T_J$=25℃ | $V_R$=100V | $I_R$ 2) | - | 5.0 | μA |
| | $T_J$=125℃ | | | - | 5.0 | mA |
| Typical Junction Capacitance | 4V，1MHz | | $C_J$ | 234 | | pF |

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle
2.Pulse test: pulse width≤40ms

## THERMAL CHARACTERISTCS

| Parameter | Symbol | SMC | Unit |
|---|---|---|---|
| Typical thermal resistance 3) | $R_{\theta JA}$ | 55.0 | ℃/W |
| | $R_{\theta JL}$ | 17.0 | |

3.P.C.B. mounted with 0.55" x 0.55" (14.0 mm x 14.0 mm) copper pad areas

## AVAILABALE PACK INFORMATION

| Product code | Pack | Reel Size (mm) | Quantity (pcs/reel) | Box Size L×W×H (mm) | Quantity (reel/box) | Carton Size L×W×H (mm) | Quantity (box/carton) | Quantity (carton) |
|---|---|---|---|---|---|---|---|---|
| SS810C-SMC | T/R | Φ330 | 3000 | 338×338×39 | 2 | 370×370×360 | 8 | 48 |

Fig.1-Forward Current Derating Curve

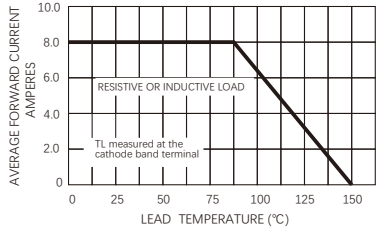



Fig.2-maximum Non-repetitive Peak Forward Surge Current

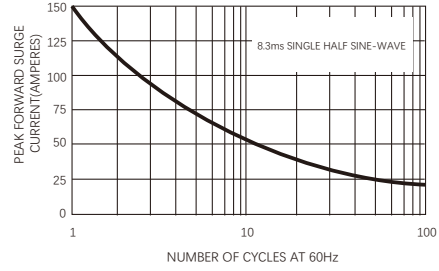



Fig.3-Typical Instantaneous Forward Characteristics

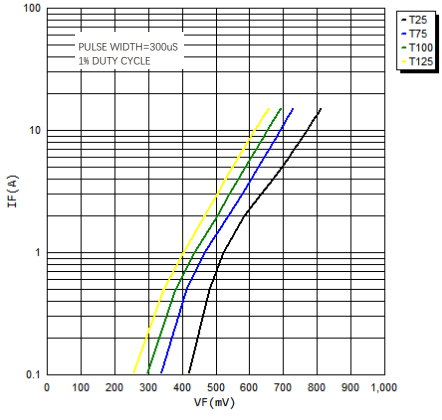



Fig.4-Typical Reverse Characteristics

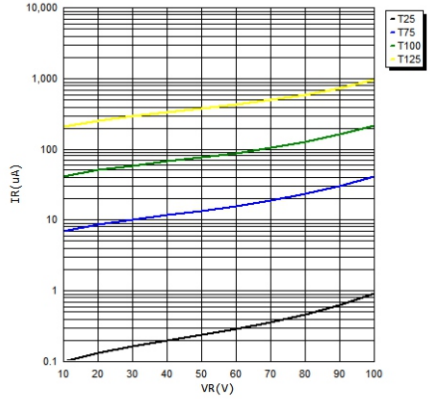
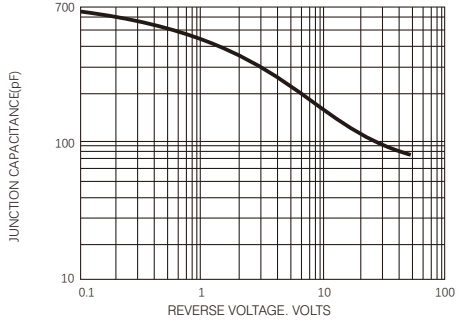
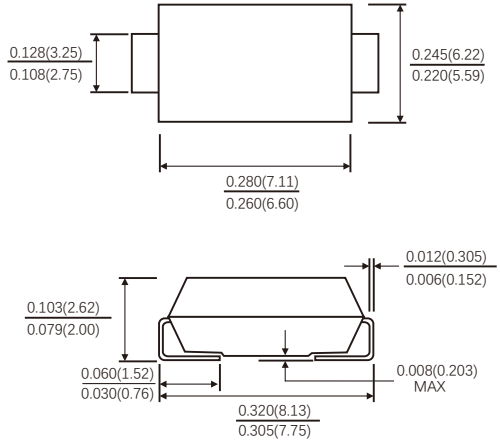


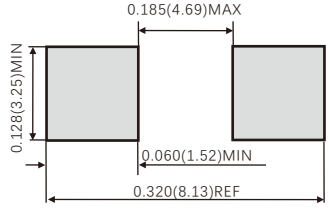

Fig.5-Typical Junction Capacitance



## SMC(DO-214AB)




## Suggested PAD Layout




Dimensions in inches and (millimeters)

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