SS12 THUR SS120



SS12 THUR SS120 Schottky Barrier Rectifiers

General description

1.0Amp Surface Mounted Schottky Barrier Rectifiers

FEATURES

- Flammability Classification 94V-O
- Plastic package has Underwriters Laboratory
- For surface mounted applications
- · Low profile package
- Built-in strain relief
- Metal to silicon rectifier. majority carrier conduction
- · Low power loss, high efficiency
- High surge capacity
- · High current capacity ,low VF
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications.

MECHANICAL DATA

- Case: JEDEC DO-214AC molded plastic
- Terminals:Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes positive end (cathode)
- Weight: 0.0025 ounce, 0.070 gram

SMA/DO214AC

PINNING

| PIN | DESCRIPTION | | | | | |
|-----|-------------|--|--|--|--|--|
| 1 | Cathode | | | | | |
| 2 | Anode | | | | | |



Top View

Marking Code: SS12 ~ SS120 Simplified outline SMA and symbol

Device Name: SS 12 - SS 120

Color Band Denotes Cathode

Maximum Ratings And Electrical Characteristics

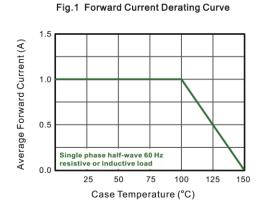
| Parameter | Symbols | SS12 | SS14 | SS16 | SS18 | SS110 | SS112 | SS115 | SS120 | Units |
|--|--------------------|------------|------|------|----------|-------|-------|----------|-------|-------|
| Marking Code | Mark | SS12 | SS14 | SS16 | SS18 | SS110 | SS112 | SS115 | SS120 | N/A |
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 20 | 40 | 60 | 80 | 100 | 120 | 150 | 200 | V |
| Maximum RMS voltage | V _{RMS} | 14 | 28 | 42 | 56 | 70 | 84 | 105 | 140 | V |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 40 | 60 | 80 | 100 | 120 | 150 | 200 | V |
| Maximum Average Forward Rectified Current at T_c = 100 °C | I _{F(AV)} | 1.0 | | | | | | | | Α |
| Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | Ігѕм | 25 | | | | | | | | Α |
| Max Instantaneous Forward Voltage at 1 A | V _F | 0.55 | | 0.70 | | 0.85 | | 0.90 | | V |
| Maximum DC Reverse Current $T_a = 25^{\circ}C$ at Rated DC Reverse Voltage $T_a = 100^{\circ}C$ | I _R | | | .3 | 0.2 5 | | | 0.1 2 | | mA |
| Typical Junction Capacitance (1) | Cj | 110 | | 80 | | | | | pF | |
| Typical Thermal Resistance (2) | RθJA | 90 | | | | | | | | °C/W |
| Operating Junction Temperature Range | Tj | -55 ~ +150 | | | | | | | | °C |
| Storage Temperature Range | Tstg | -55 ~ +150 | | | | | | | °C | |

⁽¹⁾ Measured at 1MHz and applied reverse voltage of 4 V D.C.

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Rating And Characteristic Curves



10 Instaneous Reverse Current (µA) T_=100°C 10 T_{.1}=75°C 10 SS12/SS14 SS16-SS120 10 10⁰ 100

Fig.2 Typical Reverse Characteristics

Fig.3 Typical Forward Characteristic

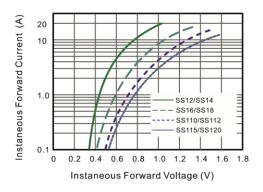
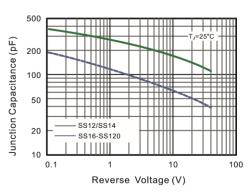


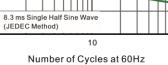
Fig.4 Typical Junction Capacitance

Percent of Rated Peak Reverse Voltage (%)



Forward Surage Current Peak Forward Surage Current (A) 36 30 24

Fig.5 Maximum Non-Repetitive Peak



Transient Thermal Impedance (°C/W) 10

Fig.6- Typical Transient Thermal Impedance

t, Pulse Duration (sec)

100

0.01

18 12 06

00

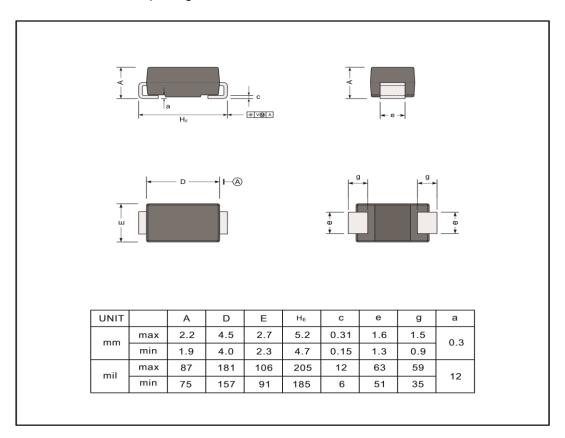
SS12 THUR SS120



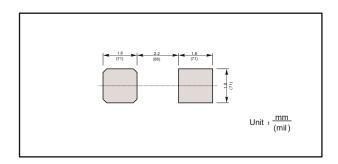
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMA



The recommended mounting pad size





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