

CSD52F THRU CSD520F

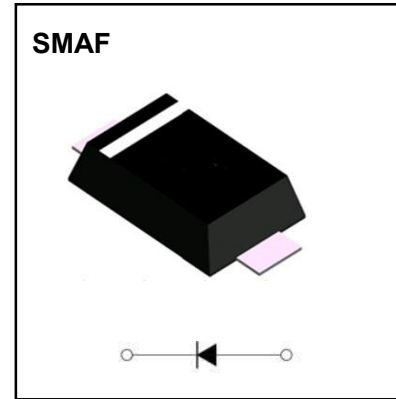
Schottky Rectifier Diodes

Features

- $I_{F(AV)}$ 5A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

Applications

- Rectifier



Limiting Values(Absolute Maximum Rating)

| Item | Symbol | Unit | Test Conditions | CSD5 | | | | | | | | | | | | | | |
|--------------------------------------|-------------|-------------|---|------------|----|----|----|----|----------|-----|-----|-----|--|--|--|--|--|--|
| | | | | 2F | 3F | 4F | 5F | 6F | 8F | 10F | 15F | 20F | | | | | | |
| Repetitive Peak Reverse Voltage | V_{RRM} | V | | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | | | | | | |
| Maximum RMS Voltage | V_{RMS} | V | | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | | | | | | |
| Average Forward Current | $I_{F(AV)}$ | A | 60Hz Half-sine wave , Resistance load , TL(Fig.1) | 5.0 | | | | | | | | | | | | | | |
| Surge(Non-repetitive)Forward Current | I_{FSM} | A | 60Hz Half-sine wave , 1 cycle , $T_a=25^{\circ}C$ | 150 | | | | | | | | | | | | | | |
| Junction Temperature | T_J | $^{\circ}C$ | | -55~+125 | | | | | -55~+150 | | | | | | | | | |
| Storage Temperature | T_{STG} | $^{\circ}C$ | | -55 ~ +150 | | | | | | | | | | | | | | |

Electrical Characteristics (T =25°C Unless CSD otherwise specified)

| Item | Symbol | Unit | Test Condition | CSD5 | | | | | | | | | | | | | | |
|-----------------------------|------------------|---------------|-------------------------------|---------------------|----|------|----|------|-----|------|-----|-----|--|--|--|--|--|--|
| | | | | 2F | 3F | 4F | 5F | 6F | 8F | 10F | 15F | 20F | | | | | | |
| Peak Forward Voltage | V_F | V | $I_F=5.0A$ | 0.55 | | 0.70 | | 0.85 | | 0.95 | | | | | | | | |
| Peak Reverse Current | I_{RRM1} | mA | $V_{RM}=V_{RRM}$ | $T_a =25^{\circ}C$ | | | | | 0.2 | | | | | | | | | |
| | I_{RRM2} | | | $T_a =100^{\circ}C$ | | | | | 5.0 | | | | | | | | | |
| Thermal Resistance(Typical) | $R_{\theta J-A}$ | $^{\circ}C/W$ | Between junction and ambient | 55 | | | | | | | | | | | | | | |
| | $R_{\theta J-L}$ | | Between junction and terminal | 17 | | | | | | | | | | | | | | |

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

Typical Characteristics

FIG. 1: FORWARD CURRENT DERATING CURVE

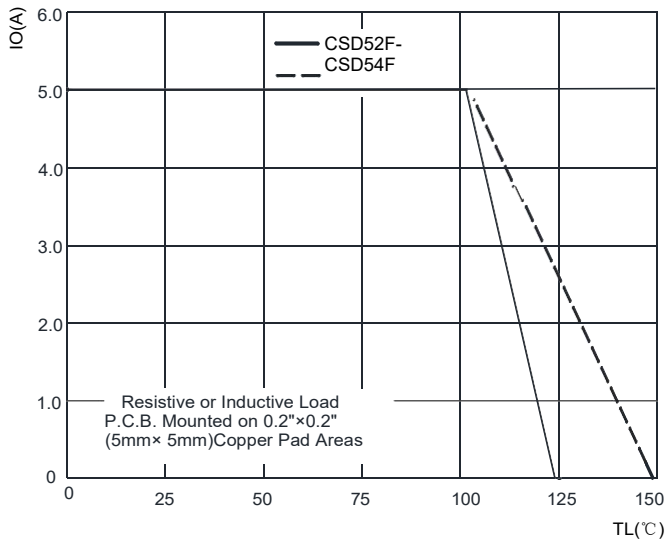


FIG. 2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

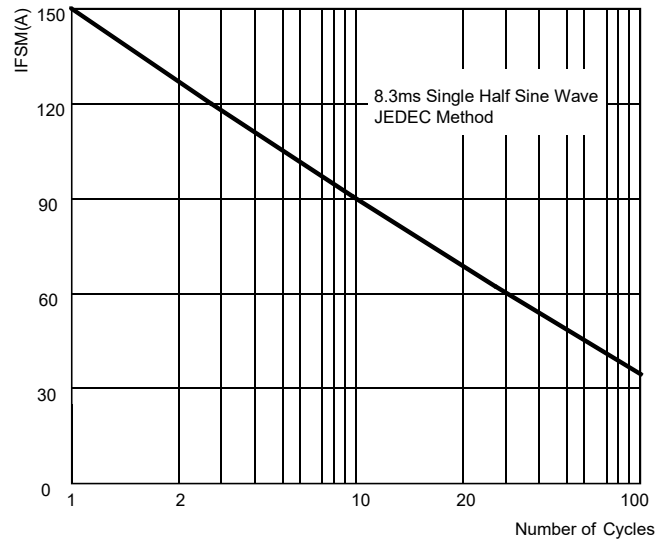


FIG. 3: TYPICAL FORWARD CHARACTERISTICS

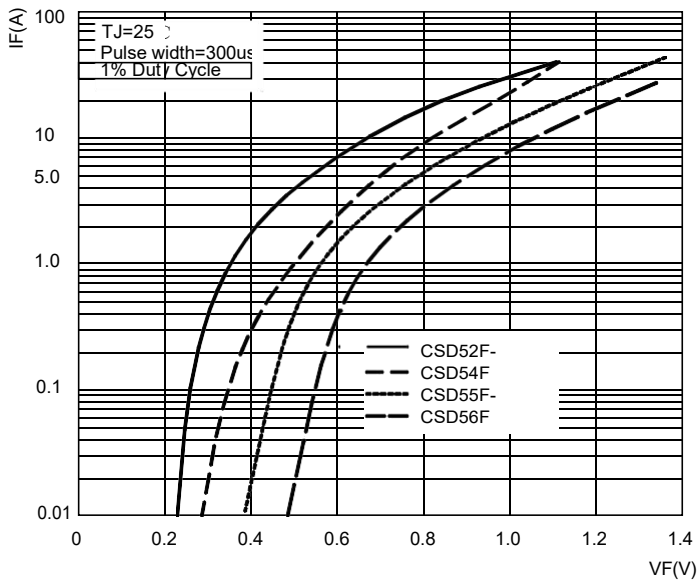
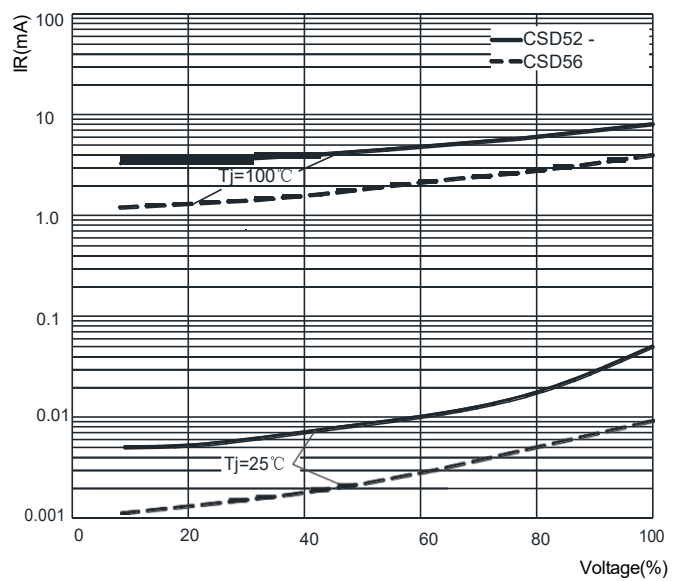
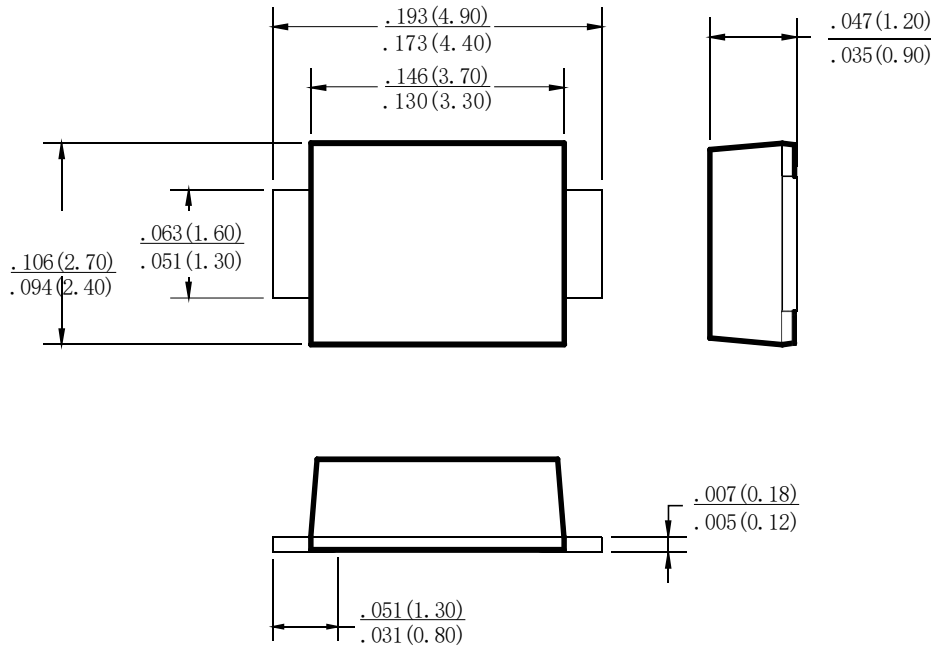


FIG. 4: TYPICAL REVERSE CHARACTERISTICS

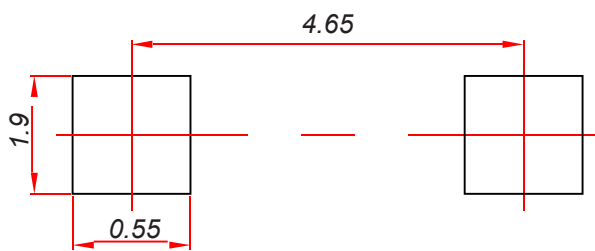


SMAF Package Outline Dimensions



Dimensions in inches and (millimeters)

SMAF Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

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