

SMAG Plastic-Encapsulate Diodes

SS56L Schottky Rectifier Diode

Features

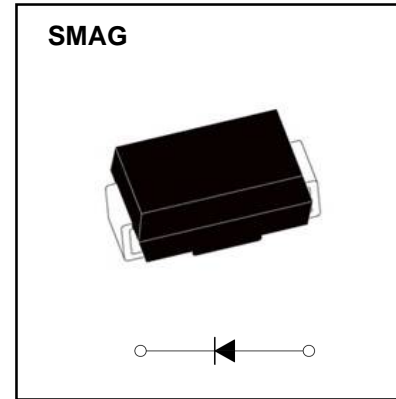
- $I_{F(AV)}$ 5A
- V_{RRM} 60V
- High surge current capability
- Polarity: Color band denotes cathode
- Low peak forward voltage

Applications

- Rectifier

Marking

- SS56L:SS56L



Limiting Values(Absolute Maximum Rating)

| Item | Symbol | Unit | Test Conditions | SS56L |
|--------------------------------------|-------------|--------------------|--|------------|
| Repetitive Peak Reverse Voltage | V_{RRM} | V | | 60 |
| Maximum RMS Voltage | V_{RMS} | V | | 42 |
| Average Forward Current | $I_{F(AV)}$ | A | 60Hz Half-sine wave, Resistance load | 5.0 |
| Surge(Non-repetitive)Forward Current | I_{FSM} | A | 60Hz Half-sine wave, 1 cycle, $T_a=25\text{ C}$ | 120 |
| Junction Temperature | T_J | $^{\circ}\text{C}$ | | -55 ~ +150 |
| Storage Temperature | T_{STG} | $^{\circ}\text{C}$ | | -55 ~ +150 |

Electrical Characteristics (T=25 $^{\circ}\text{C}$ Unless otherwise specified)

| Item | Symbol | Unit | Test Condition | | SS56L |
|--------------------------------|------------------|-----------------------------|---|---------------------------|-------|
| Peak Forward Voltage | V_F | V | $I_F=5.0\text{A}$ | $T_a=25^{\circ}\text{C}$ | 0.50 |
| Peak Reverse Current | I_{RRM1} | mA | $V_{RM}=V_{RRM}$ | $T_a=25^{\circ}\text{C}$ | 0.3 |
| | I_{RRM2} | | | $T_a=100^{\circ}\text{C}$ | 50 |
| Thermal Resistance(Typical) | $R_{\theta J-A}$ | $^{\circ}\text{C}/\text{W}$ | Between junction and ambient | | 75 |
| | $R_{\theta J-L}$ | | Between junction and lead | | 27 |
| Junction Capacitance (Typical) | C_j | pF | Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C | | 400 |

Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on FR4 PCB double sided copper mini pad

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

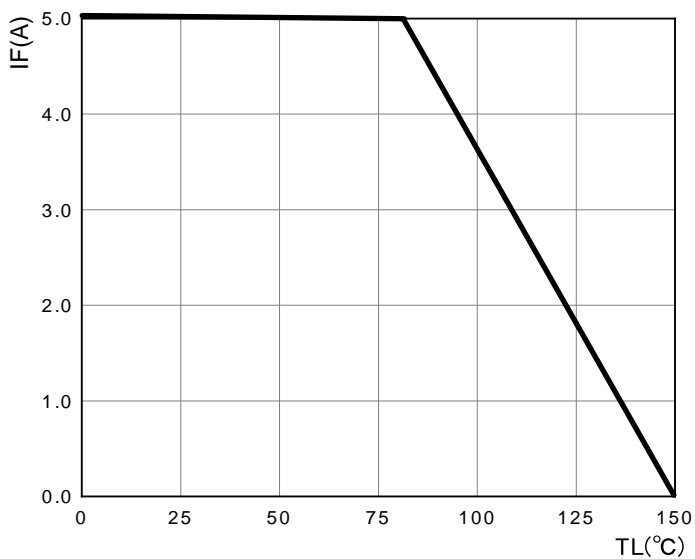


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



FIG.3: TYPICAL FORWARD CHARACTERISTICS

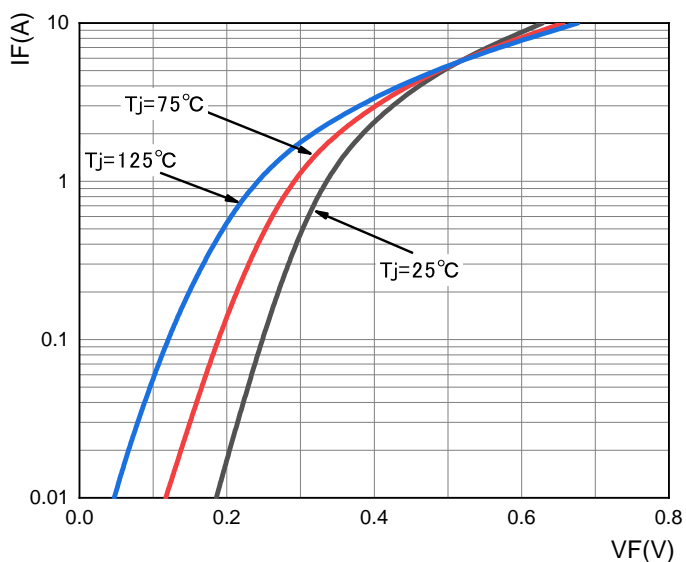
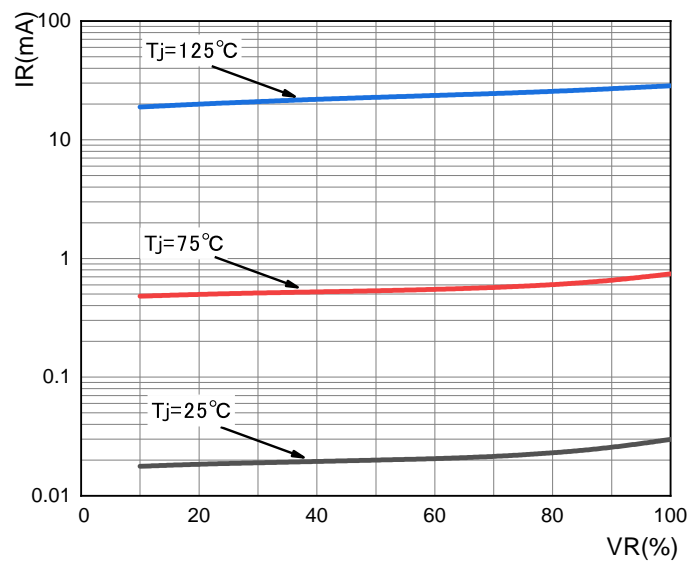
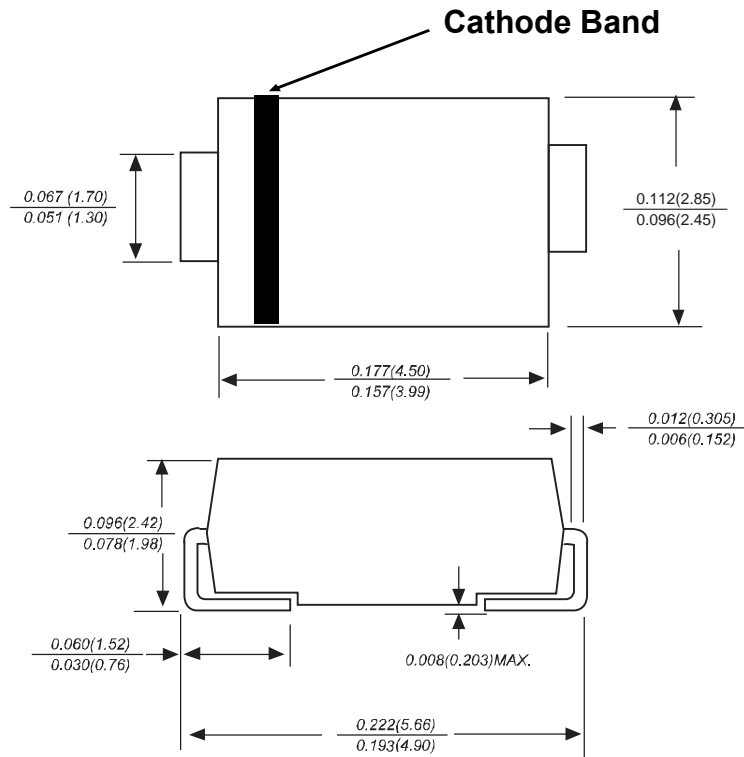


FIG.4: TYPICAL REVERSE CHARACTERISTICS

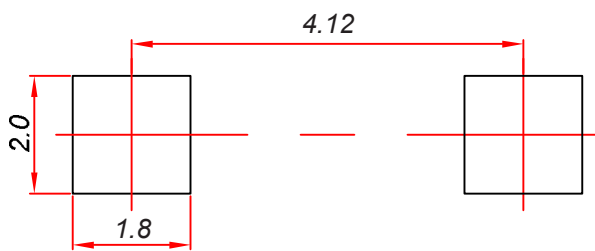


SMAG Package Outline Dimensions



Dimensions in inches and (millimeters)

SMAG Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

NOTICE

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Reel Taping Specifications For Surface Mount Devices–SMAG

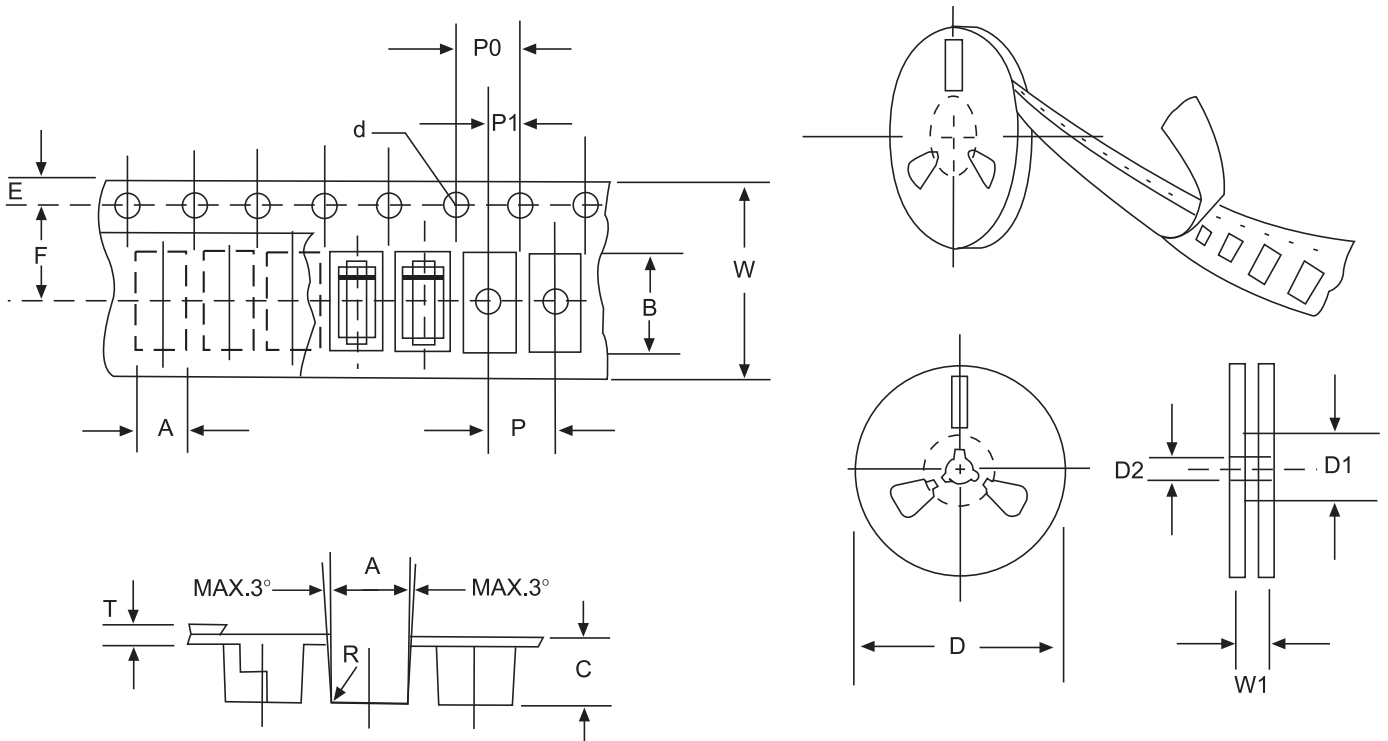


FIG: CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

| ITEM | SYMBOL | SMAG mm(inch) |
|------------------------|--------|---------------------------|
| Carrier width | A | 2.79±0.1(0.110±0.004) |
| Carrier length | B | 5.33±0.1(0.210±0.004) |
| Carrier depth | C | 2.36±0.1(0.093±0.004) |
| Sprocket hole | d | 1.55±0.05(0.061±0.002) |
| Reel outside diameter | D | 279±2.0 (11± 0.079) |
| Reel inner diameter | D1 | 75 ±1.0 (2.95 ±0.039) |
| Feed hole diameter | D2 | 13±0.5(0.512±0.020) |
| Strocket hole position | E | 1.75±0.1(0.069±0.004) |
| Punch hole position | F | 5.5±0.05(0.217±0.002) |
| Punch hole pitch | P | 4.0±0.1(0.157±0.004) |
| Sprocket hole pitch | P0 | 4.0±0.1(0.157±0.004) |
| Embossment center | P1 | 2.0±0.1(0.079±0.004) |
| Total tape thickness | T | 0.28±0.02(0.011 ±0.0008) |
| Tape width | W | 12.0±0.2(0.472±0.008) |
| Reel width | W1 | 16.8±2.0(0.661±0.079) |

NOTE: Devices are packed in accordance with EIA standard RS-481-A and specification given above.