

DO-27 Plastic-Encapsulate Diodes

Features

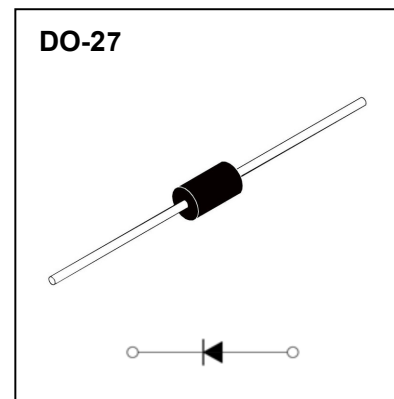
- $I_{F(AV)}$ 5A
- V_{RRM} 20V-100V
- High surge current cap ability
- Polarity: Color band denotes cathode

Applications

- Rectifier

- SR5XX

XX: From 20 To 100



Limiting Values (Absolute Maximun Rating)

| Item | Symbol | Unit | Conditions | SR520 | SR530 | SR540 | SR550 | SR560 | SR580 | SR5100 | | |
|--------------------------------------|-------------|------------------|--|------------|-------|-------|-------|-------|-------|--------|--|--|
| Repetitive Peak Reverse Voltage | V_{RRM} | V | | 20 | 30 | 40 | 50 | 60 | 80 | 100 | | |
| Maximum RMS Voltage | V_{RMS} | V | | 14 | 21 | 28 | 35 | 42 | 56 | 70 | | |
| 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 , $T_a = 25\text{ }^\circ\text{C}$ | 120 | | | | | | | | |
| Junction Temperature | T_J | $^\circ\text{C}$ | | -55~+150 | | | | | | | | |
| Storage Temperature | T_{STG} | $^\circ\text{C}$ | | -55 ~ +150 | | | | | | | | |

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

| Item | Symbol | Unit | Test Conditions | SR520 | SR530 | SR540 | SR550 | SR560 | SR580 | SR5100 | |
|-----------------------------|------------------|--------------------|------------------------------|-------------------------|-------|-------|-------|-------|-------|--------|-----|
| Peak Forward Voltage | V_{FM} | V | $I_{FM}=5.0A$ | 0.55 | | | 0.7 | | | 0.85 | |
| Peak Reverse Current | I_{RRM1} | mA | $V_{RM}=V_{RRM}$ | $T_a=25^\circ\text{C}$ | | | | | | | 0.1 |
| | I_{RRM2} | | | $T_a=125^\circ\text{C}$ | | | | | | | 10 |
| Thermal Resistance(Typical) | $R_{\theta J-A}$ | $^\circ\text{C/W}$ | Between junction and ambient | | | | | 25 | | | |
| | $R_{\theta J-L}$ | | Between junction and lead | | | | | 8 | | | |

Notes:

- 1) 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

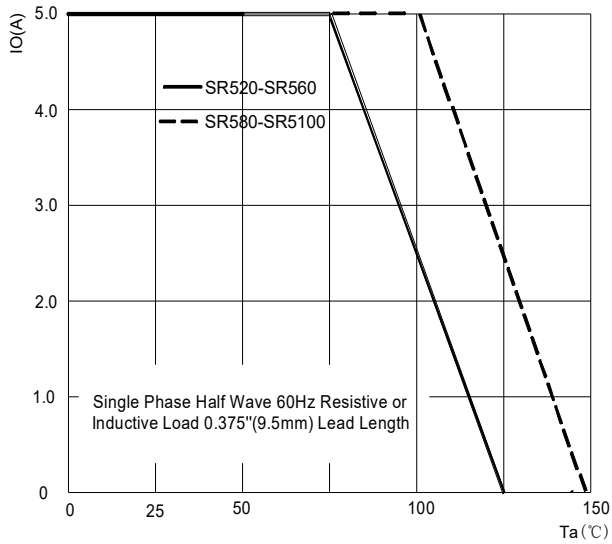


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

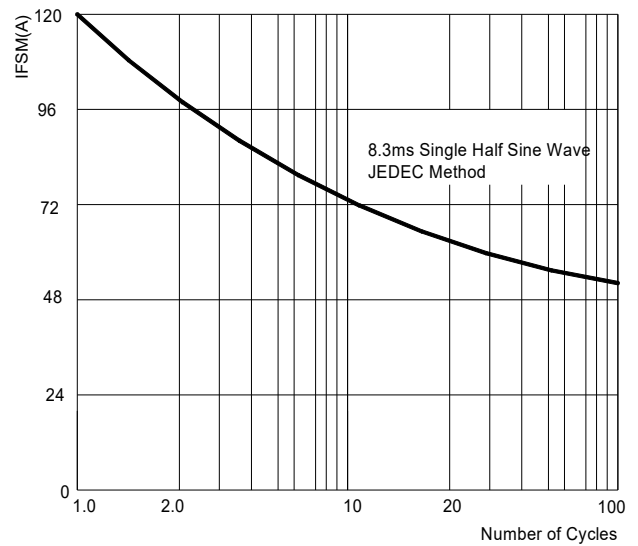


FIG.3: TYPICAL FORWARD CHARACTERISTICS

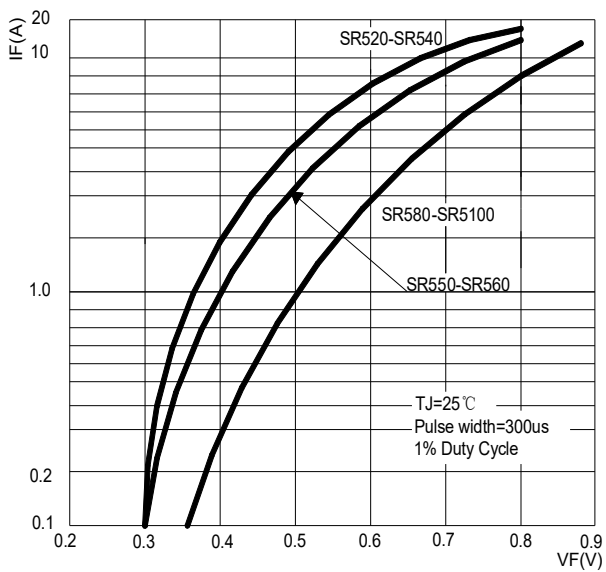
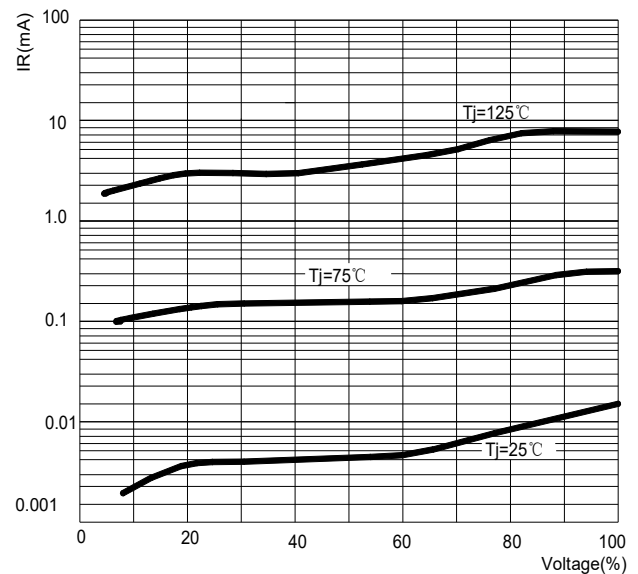
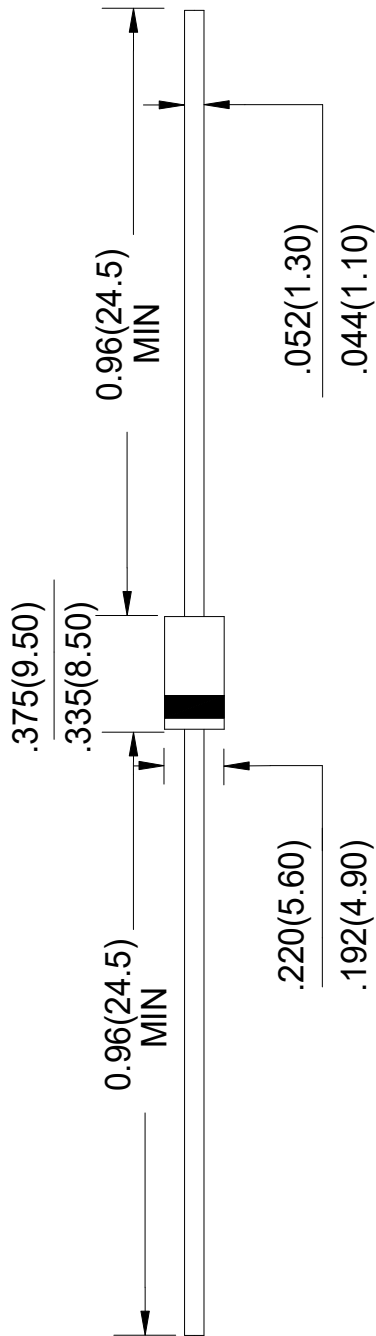


FIG.4: TYPICAL REVERSE CHARACTERISTICS



DO-27 Package Outline Dimensions



Unit: in inches (millimeters)