

Features

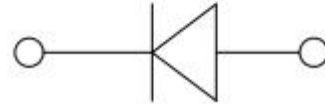
- Low power loss
- Guardring for overvoltage protection
- Extremely fast switching
- High frequency operation
- High forward surge capability
- Solder dip maximum peak of 275 °C /7s, per JESD 22-B106

Typical Application

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- Package: DO-204AL(DO-41)
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color Band denotes cathode end



Maximum Ratings (Ta=25°C Unless otherwise specified)

| PARAMETER | Symbol | Unit | Conditions | 1N58 | | |
|-------------------------------------|-------------|------|---|------------|----|----|
| | | | | 17 | 18 | 19 |
| Repetitive Peak Reverse Voltage | V_{RRM} | V | | 20 | 30 | 40 |
| Average Rectified Output Current | $I_{F(AV)}$ | A | 60Hz Half-sine wave, Resistance load, Ta(FIG.1) | 1.0 | | |
| Surge(Nonrepetitive)Forward Current | I_{FSM} | A | 60HZ sine wave, 1 cycle, Ta=25°C | 30 | | |
| Storage Temperature | T_{stg} | °C | | -55 ~ +150 | | |
| Junction Temperature | T_j | °C | | -55 ~ +150 | | |

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

| PARAMETER | Symbol | Unit | Conditions | 1N58 | | |
|-----------------------------|------------------|------|------------------------------|----------|------|-----|
| | | | | 17 | 18 | 19 |
| Peak Forward Voltage | V_{FM} | V | $I_{FM}=1.0A$ | 0.45 | 0.55 | 0.6 |
| Peak Reverse Current | I_{RRM1} | mA | $V_{RM} = V_{RRM}$ | Ta=25°C | | |
| | I_{RRM2} | | | Ta=125°C | | |
| Thermal Resistance(Typical) | $R_{\theta J-A}$ | °C/W | Between junction and ambient | 50 | | |



Characteristics (Typical)

FIG1: Forward Current Derating Curve

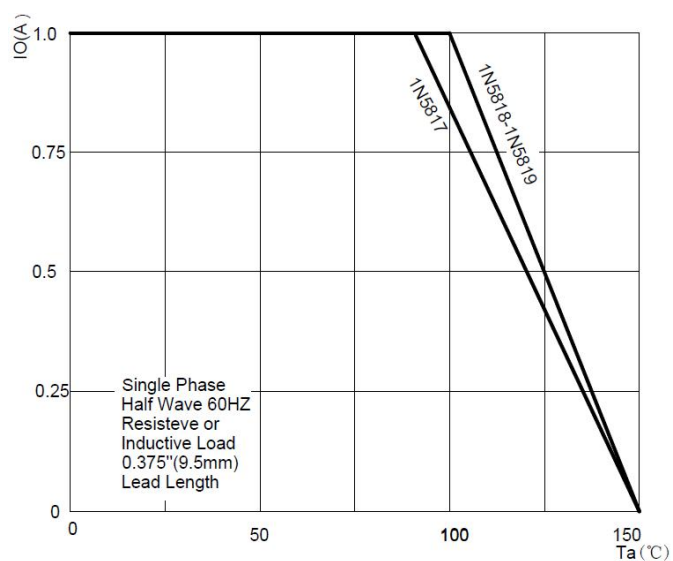


FIG2: Surge Forward Current Capability

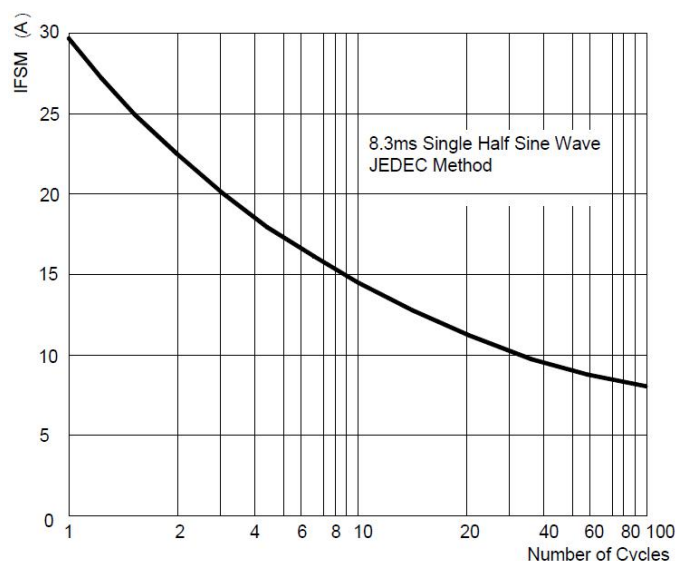


FIG3: Instantaneous Forward Voltage

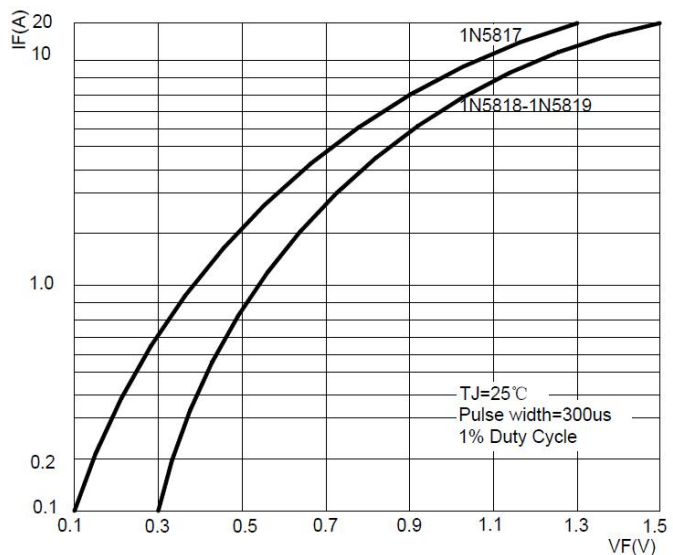
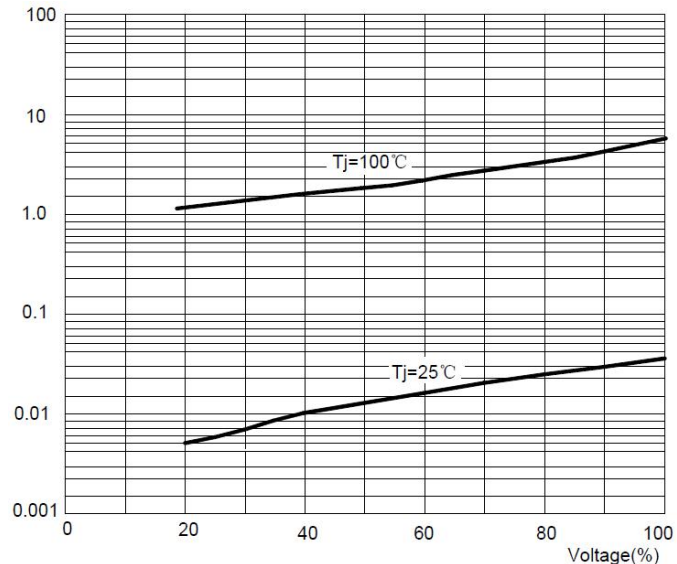


FIG4: Typical Reverse Characteristics





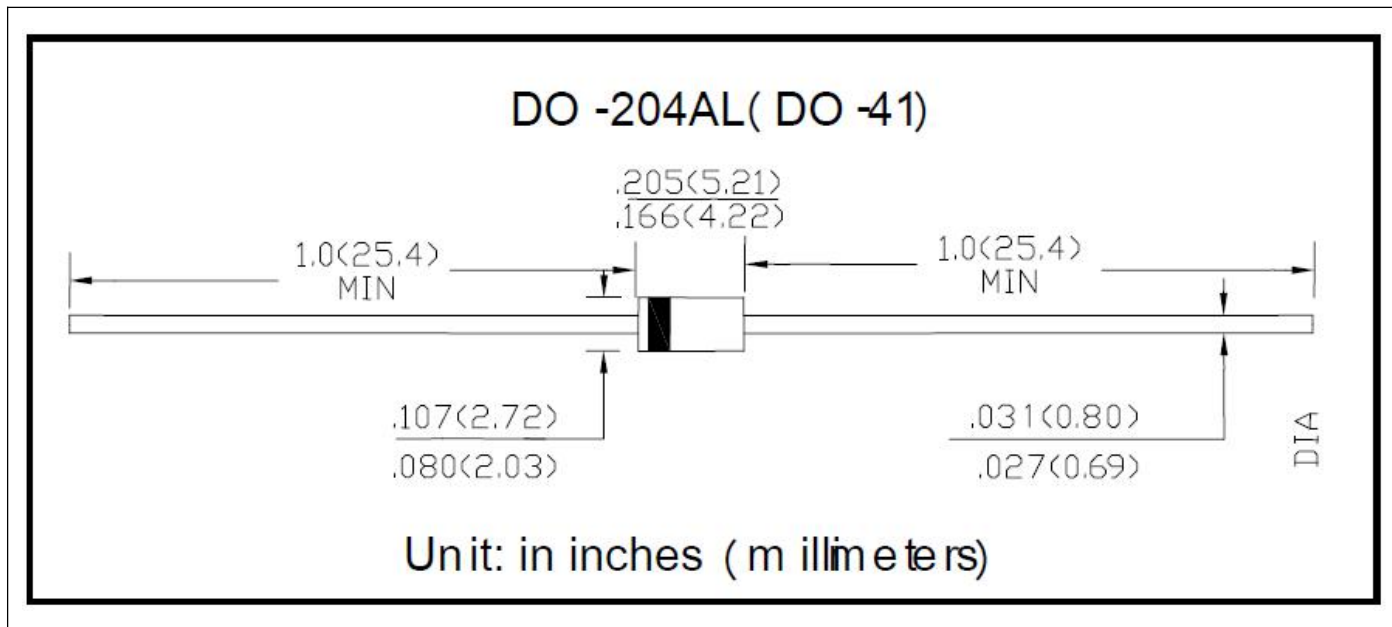
安美半导体
ANMEI Semiconductor

1N5817 THRU 1N5819

Ordering Information (Example)

| PREFERED | PACKAGE CODE | MINIMUM PACKAGE(pcs) | INNER BOX QUANTITY(pcs) | OUTER CARTON QUANTITY(pcs) | DELIVERY MODE |
|---------------|-----------------|----------------------|-------------------------|----------------------------|---------------|
| 1N5817~1N5819 | DO-204AL(DO-41) | 5000 | 5000 | 50000 | Tape |

Outline Dimensions



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